

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*

FORM APPROVED  
OMB NO. 1040-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. UTU-0807	
TYPE OF WELL <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE		6. IF INDIAN, ALLOTTEE OR TRIBE NAME UTE TRIBE	
OIL WELL GAS WELL OTHER		7. UNIT AGREEMENT NAME WONSITS VALLEY UNIT	
2. NAME OF OPERATOR QEP UINTA BASIN, INC.		8. FARM OR LEASE NAME, WELL NO. WV 16CML-14-8-21	
3. ADDRESS 11002 E. 17500 S. Vernal, Ut 84078		9. API NUMBER: 43047-38737	
4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements*) At Surface 626534X 48' FSL 1092' FEL SESE SECTION 14 T8S R21E At proposed production zone 4441539Y 40.116544 -109.515181		10. FIELD AND POOL, OR WILDCAT WONSITS VALLEY	
14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE* 10 +/- EAST OF OURAY, UTAH		11. SEC., T, R, M, OR BLK & SURVEY OR AREA SEC. 14, T8S, R21E Mer SLB	
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (also to nearest drlg, unit line if any) 48' +/-		12. COUNTY OR PARISH Uintah	
16. NO. OF ACRES IN LEASE 1280.00		13. STATE UT	
18. DISTANCE FROM PROPOSED location to nearest well, drilling, completed, applied for, on this lease, ft 1000' +/-		17. NO. OF ACRES ASSIGNED TO THIS WELL 20	
21. ELEVATIONS (Show whether DF, RT, GR, ect.) 4890.1' GR		20. BLM/BIA Bond No. on file ESB000024	
22. DATE WORK WILL START ASAP		23. Estimated duration 20 days	
24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan
- A surface Use Plan (if location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED Jan Nelson Name (printed/typed) Jan Nelson

DATE 10-16-06

TITLE Regulatory Affairs

(This space for Federal or State office use)

PERMIT NO. 43047-38737

APPROVAL DATE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Bradley G. Hill TITLE BRADLEY G. HILL ENVIRONMENTAL MANAGER

\*See Instructions On Reverse Side

DATE 10-30-06

RECEIVED

OCT 19 2006

Federal Approval of this  
Action is Necessary

DIV. OF OIL, GAS & MINING



### **Additional Operator Remarks**

QEP Uinta Basin, Inc. proposes to drill a well to 11,325' to test the MesaVerde. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements"

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

Please be advised that QEP Uinta Basin Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No.ESB000024. The principal is QEP Uinta Basin Inc. via surety as consent as provided for the 43 CFR 3104.2.

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. **Formation Tops**

The estimated tops of important geologic markers are as follows:

<b><u>Formation</u></b>	<b><u>Depth, TVD</u></b>
Uinta	Surface
Green River	2,645'
Wasatch	5,940'
Mesaverde	8,895'
Sego	11,305'
TD	11,325'

2. **Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

<b><u>Substance</u></b>	<b><u>Formation</u></b>	<b><u>Depth, TVD</u></b>
Gas	Wasatch	5,940'
Gas	Mesaverde	8,895'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right # A36125 (which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes.

**ONSHORE OIL & GAS ORDER NO. 1**

QEP Uinta Basin, Inc.

WV 16CML-14-8-21

**DRILLING PROGRAM**

All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal Site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

**3. Operator's Specification for Pressure Control Equipment:**

- A. 5,000 psi W.P. Double Gate BOP, 5,000 psi annular (schematic attached)
- B. Functional test daily
- C. All casing strings shall be pressure tested (0.22 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- D. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 5M system and individual components shall be operable as designed.

**4. Casing Program**

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Wt.	Grade	Thread	Cond.
20"	14"	sfc	40'	Steel	Cond.	None	Used
12-1/4"	9-5/8"	sfc	450'	36.0	J-55	STC	New
8-3/4"	7"	sfc	7,800'	26.0	J-55	LTC	New
6-1/8"	4-1/2"	sfc	11,700'	11.6	P-110	LTC	New

Casing Strengths:				Collapse	Burst	Tensile (minimum)
9-5/8"	36.0 lb.	J-55	STC	2,020 psi	3,520 psi	394,000 lb.
7"	26.0 lb.	J-55	LTC	4,320 psi	4,980 psi	367,000 lb.
4-1/2"	11.6 lb.	P-110	LTC	7,580 psi	10,690 psi	279,000 lb.

DRILLING PROGRAM

5. **Auxiliary Equipment**

- A. Kelly Cock – yes
- B. Float at the bit – no
- C. Monitoring equipment on the mud system – visually and/or PVT/Flow Show
- D. Full opening safety valve on the rig floor – yes
- E. Rotating Head – yes
- F. If drilling with air the following will be used:
- G. The blooie line shall be at least 6" in diameter and extend at least 100' from the well bore into the reserve/blooie pit.
- H. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').
- I. Compressor shall be tied directly to the blooie line through a manifold.
- J. A mister with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Drilling below surface casing will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. No chromates will be used. It is not intended to use oil in the mud, however, in the event it is used, oil concentration will be less than 4% by volume. Maximum anticipated mud weight is 11.5 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

DRILLING PROGRAM

6. **Testing, logging and coring program**

- A. Cores – none anticipated
- B. DST – none anticipated
- C. Logging – Mud Logging – 1500' to TD  
GR-SP-Induction  
Neutron Density
- D. Formation and Completion Interval: Green River/Wasatch/Mesaverde interval, final determination of completion will be made by analysis of logs.  
Stimulation: Stimulation will be designed for the particular area of interest as encountered.

7. **Cementing Program**

**14" Conductor:**

Cement to surface with construction cement.

**9-5/8" Surface Casing: sfc - 450' (MD)**

**Lead/Tail Slurry:** 0' – 450'. 240 sks (280 cu ft) Premium AG cement + 2% CaCl<sub>2</sub> + 0.25 lb/sk celloflake. Slurry wt: 15.8 ppg, Slurry yield: 1.17 ft<sup>3</sup>/sk, Slurry volume: 12-1/4" hole + 100% excess.

**7" Intermediate Casing: sfc - 7,800' (MD)**

**Lead Slurry:** 0' – 5,500'. 315 sks (1215 cu ft) Halliburton Hi-Fill cement. Slurry wt: 11.0 ppg, Slurry yield: 3.86 ft<sup>3</sup>/sk, Slurry volume: 8-3/4" hole + 50% excess in open hole section.

**Tail Slurry:** 5,500' – 7,800'. 420 sks (520 cu ft) of 50/50 Poz Premium AG + 2.0% Bentonite + 0.6% Halad (R)-322 fluid loss + 2.0% Microbond M expander + 5% salt + 0.25 lb/sk Flocele. Slurry wt: 14.35 ppg, Slurry yield: 1.24 ft<sup>3</sup>/sk, Slurry volume: 8-3/4" hole + 50% excess.

**4-1/2" Production Casing: sfc - 11,325' (MD)**

**Lead Slurry:** 0' - 5,500'. 150 sks (575 cu ft) Halliburton Hi-Fill cement + 16% Bentonite + 0.75% Econolite + 3% salt + 0.8% HR-7 retarder. Slurry wt: 11.0 ppg, Slurry yield: 3.84 ft<sup>3</sup>/sk, Slurry volume: 4-1/2" casing inside 7" casing.

**Tail Slurry:** 5,500' – 11,325'. 705 sks (875 cu ft) of 50/50 Poz Premium AG + 2.0% Bentonite + 0.6% Halad (R)-322 fluid loss + 2.0% Microbond M expander + 5% salt + 0.2% HR-5 retarder + 0.25 lb/sk Flocele. Slurry wt: 14.35 ppg, Slurry yield: 1.24 ft<sup>3</sup>/sk, Slurry volume: 6-1/8" hole + 20% excess in open hole section.

DRILLING PROGRAM

\*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

8. **Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards**

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 6,775 psi. Maximum anticipated bottom hole temperature is 215° F.

9. Surface is owned by the Ute Indian tribe.

5M BOP STACK

11" Rotating Head

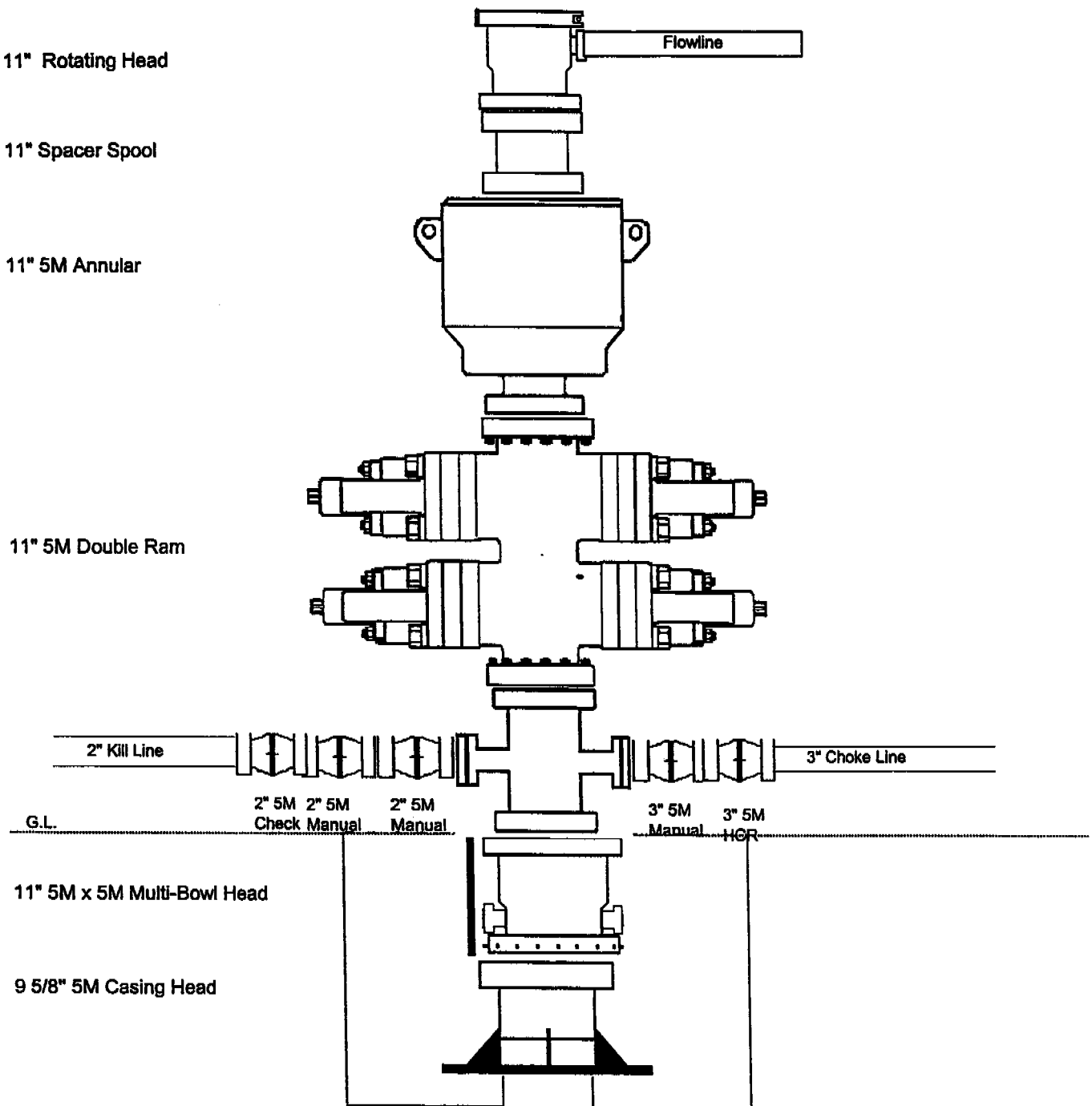
11" Spacer Spool

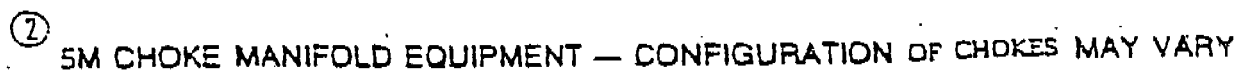
11" 5M Annular

11" 5M Double Ram

11" 5M x 5M Multi-Bowl Head

9 5/8" 5M Casing Head





QEP UINTA BASIN, INC.  
WV 16CML-14-8-21  
48' FSL 1092' FEL  
SESE, SECTION 14, T8S, R21E  
UINTAH COUNTY, UTAH  
LEASE # UTU-0807

ONSHORE ORDER NO. 1

MULTI – POINT SURFACE USE & OPERATIONS PLAN

1. **Existing Roads:**

The proposed well site is approximately 10 miles east of Ouray, Utah.

Refer to Topo Maps A and B for location of access roads within a 2 – mile radius.

There will be no improvements made to existing roads.

2. **Planned Access Roads:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

Refer to Topo Map B for the location of the proposed access road.

3. **Location of Existing Wells Within a 1 – Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

Refer to Topo Map D for the location of the proposed pipeline.

5. **Location and Type of Water Supply:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

6. **Source of Construction Materials:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**7. Methods of Handling Waste Materials:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**8. Ancillary Facilities:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**9. Well Site Layout: (See Location Layout Diagram)**

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

A pit liner is required. A felt pit liner will be required if bedrock is encountered.

**10. Plans for Reclamation of the Surface:**

Please see QEP Uinta Basin, Inc. Standard Operating Practices dated October 18, 2005, for Mesa Verde Formation Wells located in Red Wash, Wonsits Valley, Gypsum Hills, White River, Glen Bench, and Undesignated fields in Townships 07, 08 and 09 South, Ranges 21 to 25 East.

**Interim Reclamation**

Please see attached Interim Reclamation plan.

Once the well is put onto production, QEP will reclaim as much of the well pad as possible that will allow for operations to continue in a safe and reasonable manner. Reseeding will be done in the spring or fall of every year to allow winter precipitation to aid in the success of reclamation.

**Seed Mix:**

*Interim Reclamation:*

6 lbs Hycrest Crested Wheatgrass

6 lbs Needle & Threadgrass

*Final Reclamation:*

Seed Mix # 1      3 lbs. Fourwing Saltbush, 3 lbs. Indian Rice Grass, 4 lbs. Hycrest Crested Wheat Grass,  
1 lb. Needle & Threadgrass

**11. Surface Ownership:**

The well pad and access road are located on lands owned by:

Ute Tribe

PO Box 70

FT. Duchesne, UT 84026

**12. Other Information**

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted directly to the appropriate agencies by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

**Lessee's or Operator's Representative:**

Jan Nelson  
Red Wash Rep.  
QEP Uinta Basin, Inc.  
11002 East 17500 South  
Vernal, Utah 84078  
(435) 781-4331

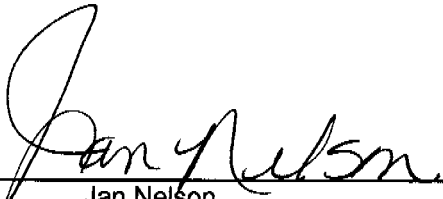
**Certification:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

QEP Uinta Basin Inc. will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by QEP Uinta Basin, Inc. it's contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

  
\_\_\_\_\_  
Jan Nelson  
Red Wash Representative

16-Oct-06  
\_\_\_\_\_  
Date

# QUESTAR EXPLR. & PROD.

WV #16CML-14-8-21

LOCATED IN UTAH COUNTY, UTAH

SECTION 14, T8S, R21E, S.1.B.&M.

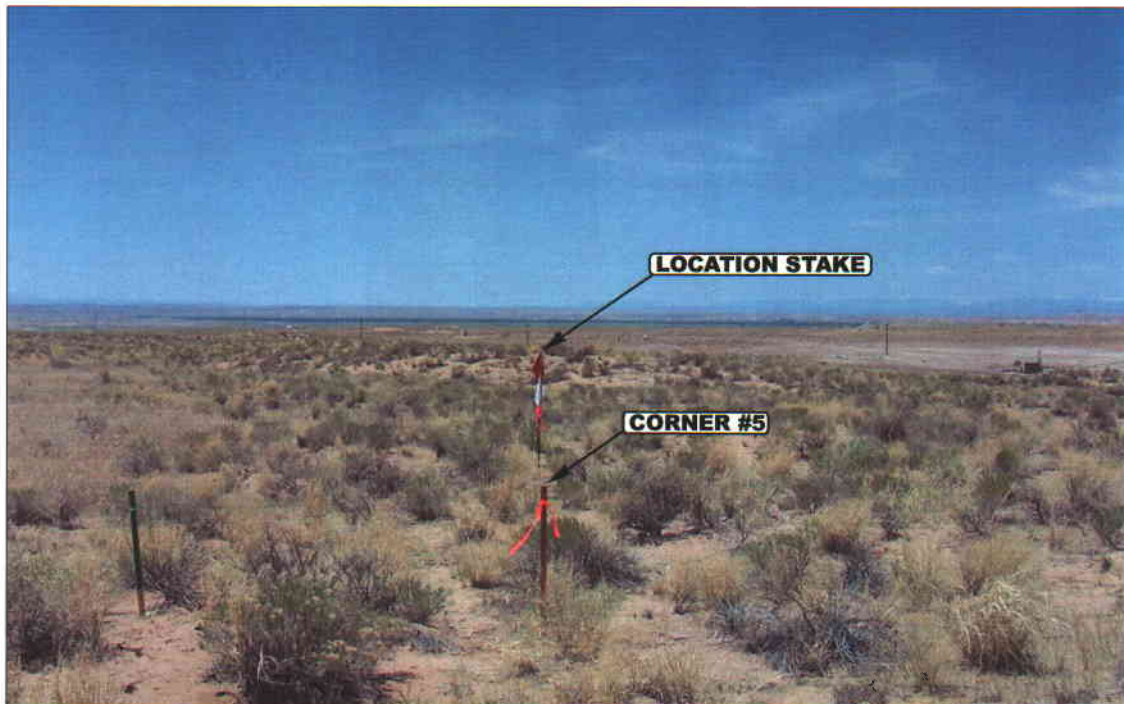


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY



**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

## LOCATION PHOTOS

TAKEN BY: D.A. | DRAWN BY: I.K. | REVISED: 00-00-00

06 07 06  
MONTH DAY YEAR

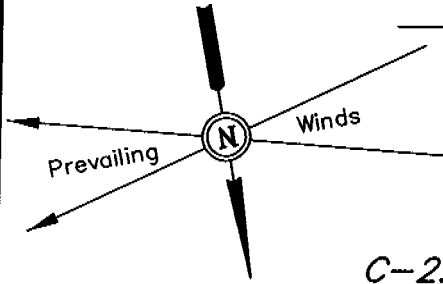
PHOTO  
PHOTO

# QUESTAR EXPLR. & PROD.

FIGURE #1

## LOCATION LAYOUT FOR

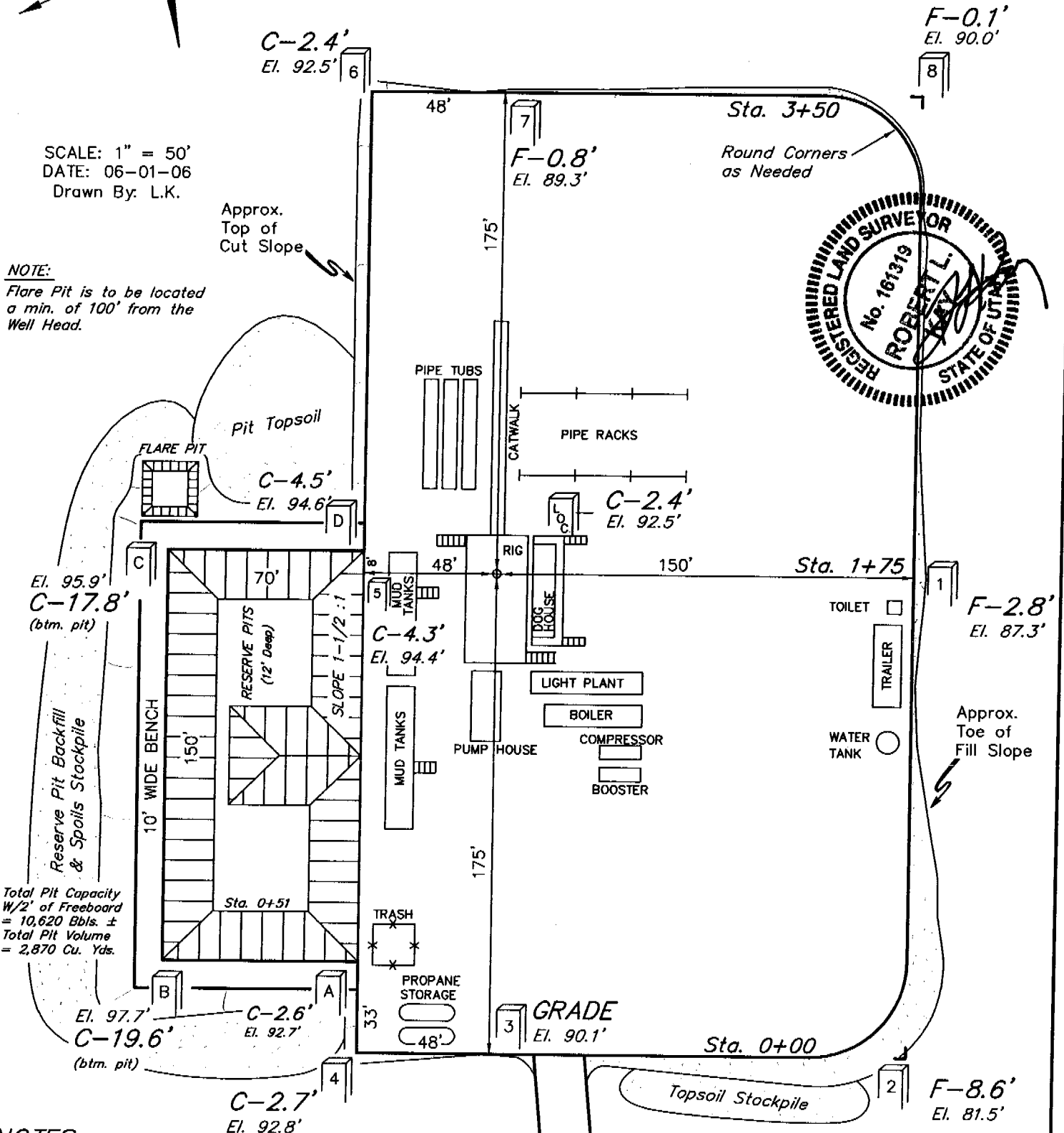
WV #16CML-14-8-21  
SECTION 14, T8S, R21E, S.L.B.&M.  
48' FSL 1092' FEL



SCALE: 1" = 50'  
DATE: 06-01-06  
Drawn By: L.K.

### NOTE:

Flare Pit is to be located  
a min. of 100' from the  
Well Head.



### NOTES:

Elev. Ungraded Ground At Loc. Stake = 4892.5'  
FINISHED GRADE ELEV. AT LOC. STAKE = 4890.1'

Proposed Access  
Road

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

# QUESTAR EXPLR. & PROD.

FIGURE #2

## TYPICAL CROSS SECTIONS FOR

WV #16CML-14-8-21

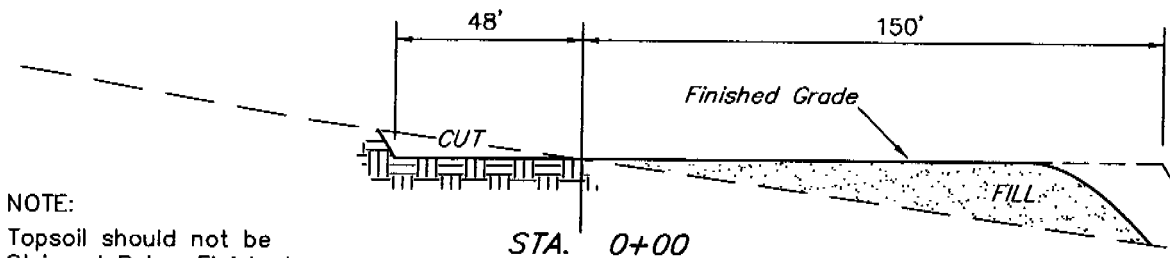
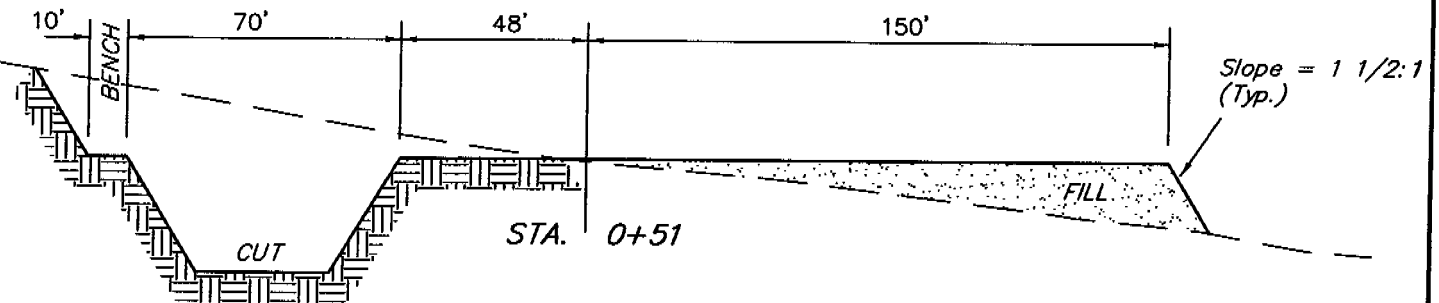
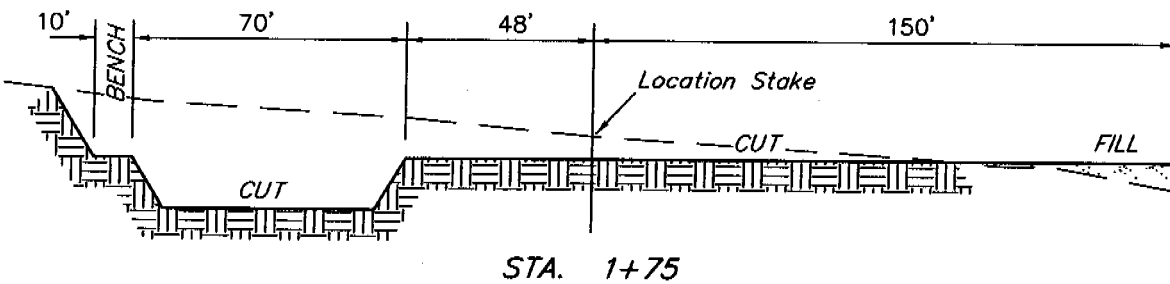
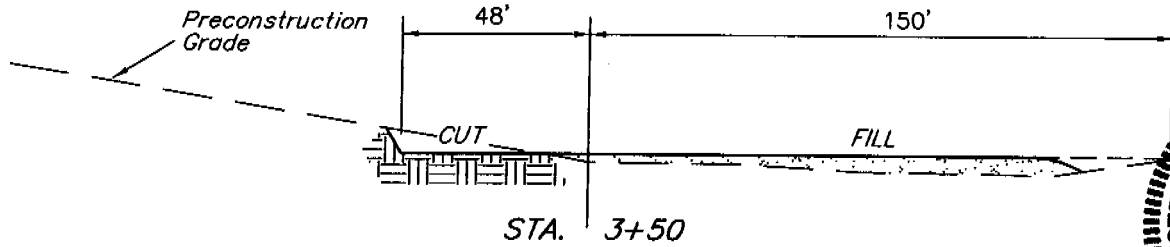
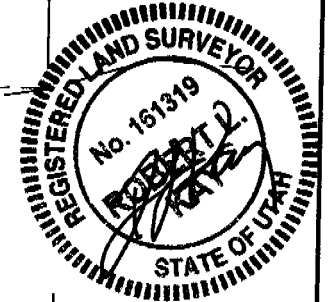
SECTION 14, T8S, R21E, S.L.B.&M.

48' FSL 1092' FEL

1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 06-01-06

Drawn By: L.K.



### NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

### APPROXIMATE YARDAGES

CUT	
(12") Topsoil Stripping	= 3,440 Cu. Yds.
Remaining Location	= 6,270 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 9,710 CU.YDS.</b>
<b>FILL</b>	<b>= 4,830 CU.YDS.</b>

### \* NOTE:

FILL QUANTITY INCLUDES 5% FOR COMPACTION

Excess Material = 4,880 Cu. Yds.

Topsoil & Pit Backfill (1/2 Pit Vol.) = 4,880 Cu. Yds.

EXCESS UNBALANCE = 0 Cu. Yds. (After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

QUESTAR EXPLR. & PROD.

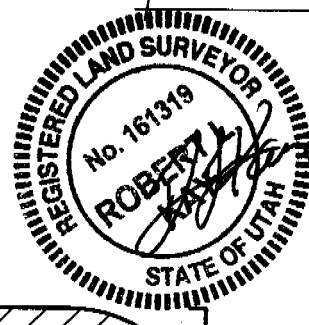
INTERIM RECLAMATION PLAN FOR

WV #16CML-14-8-21

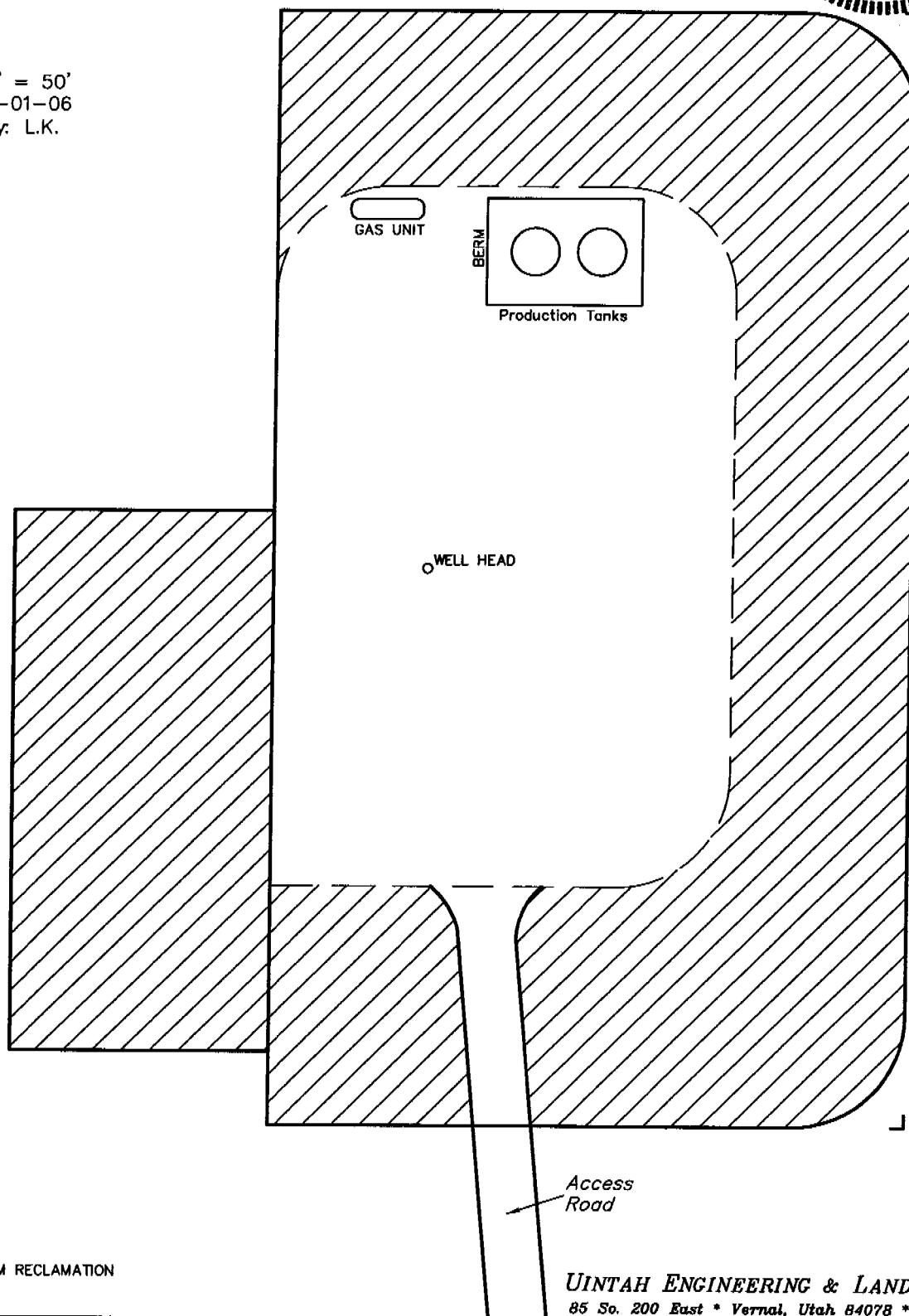
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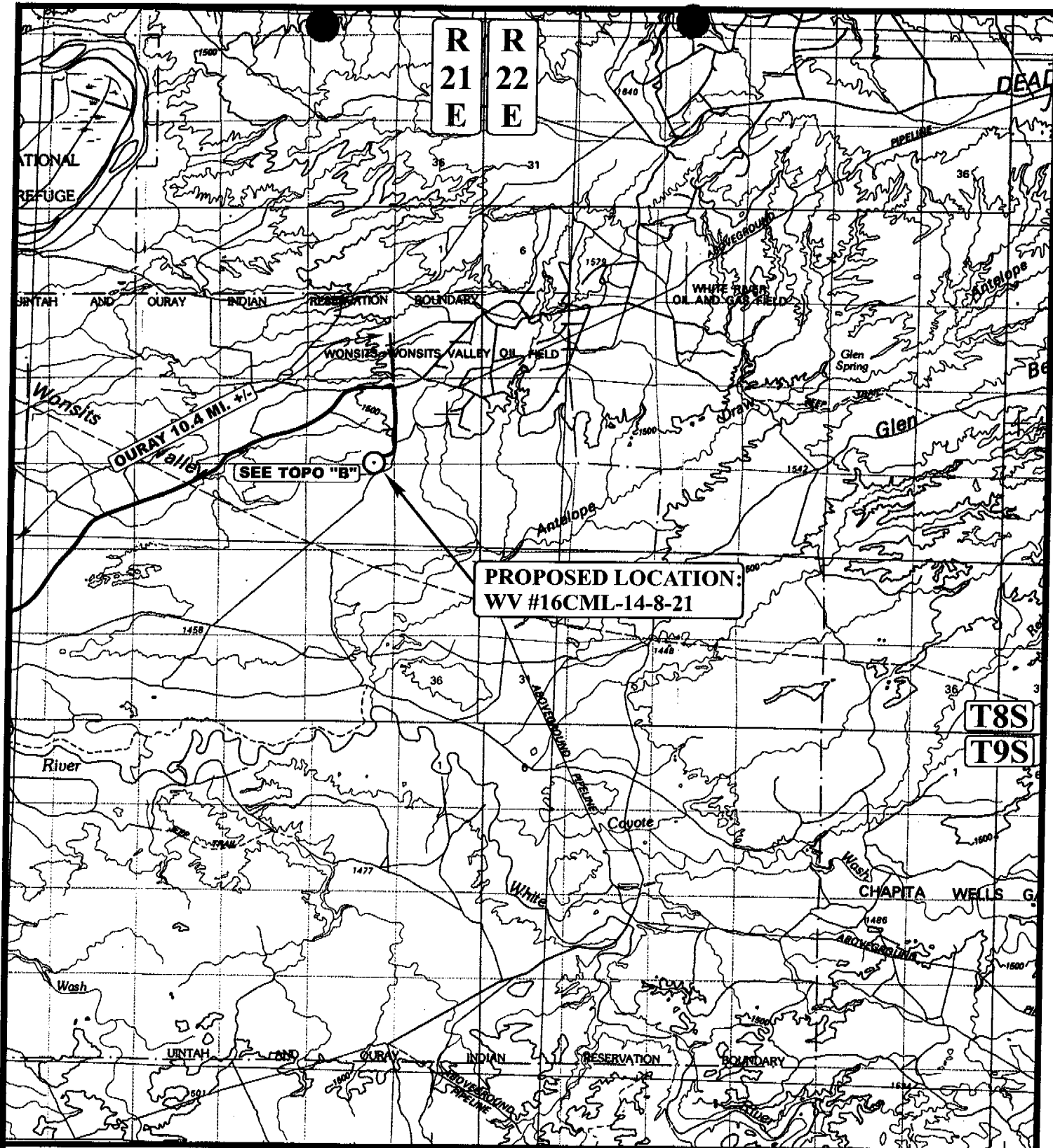
48' FSL 1092' FEL

FIGURE #3



SCALE: 1" = 50'  
DATE: 06-01-06  
Drawn By: L.K.





# **LEGEND:**

○ PROPOSED LOCATION

## **QUESTAR EXPLR. & PROD.**

WV #16CML-14-8-21

SECTION 14, T8S, R21E, S.L.B.&M.

48' FSL 1092' FEL

N



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

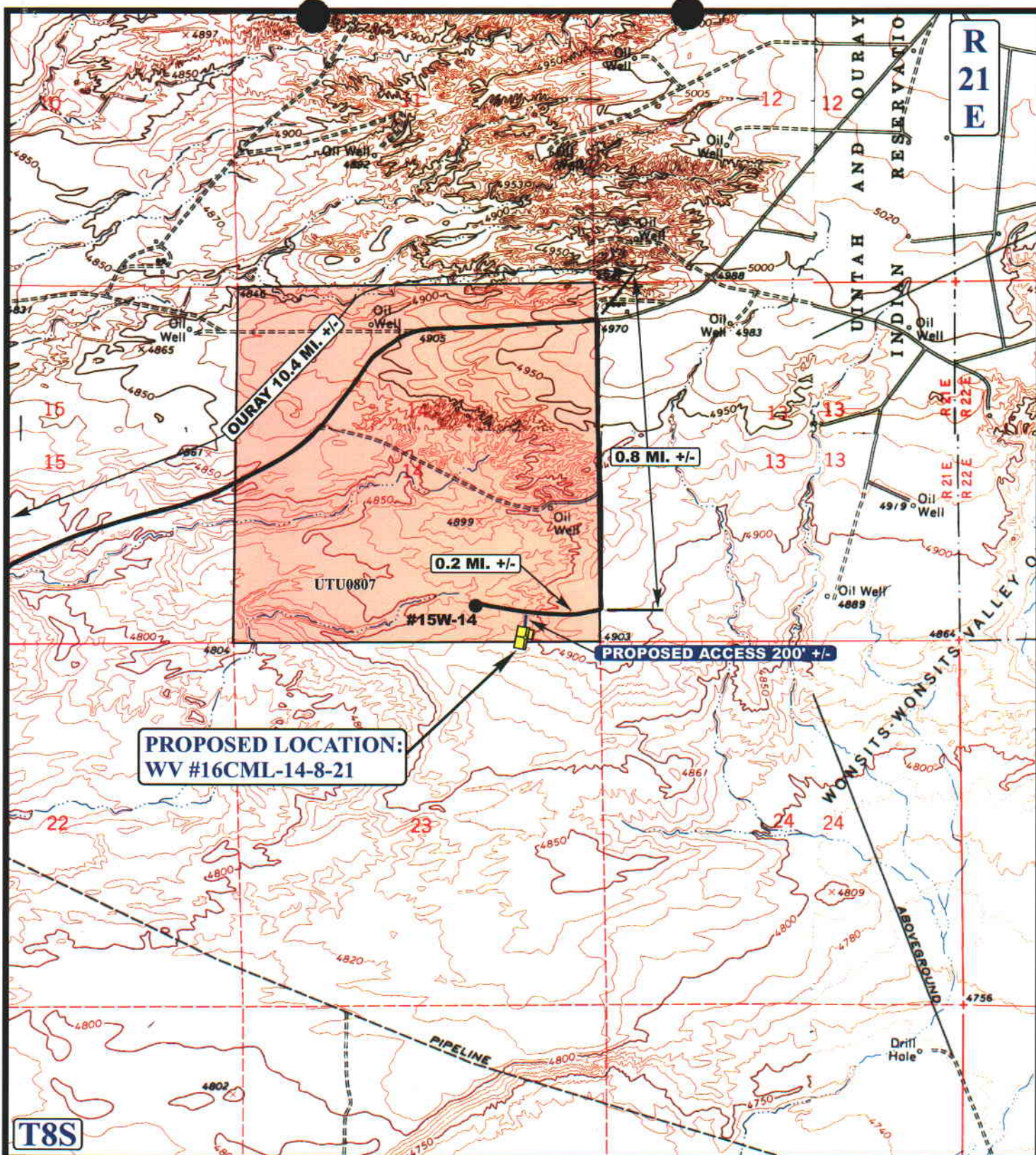
**TOPOGRAPHIC  
MAP**

**06 07 06**  
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: L.K.

REVISED: 00-00-00

**A  
TOPO**



# LEGEND:

PROPOSED ACCESS ROAD  
 EXISTING ROAD

# QUESTAR EXPLR. & PROD.

WV #16CML-14-8-21  
SECTION 14, T8S, R21E, S.L.B.&M.  
48' FSL 1092' FEL



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
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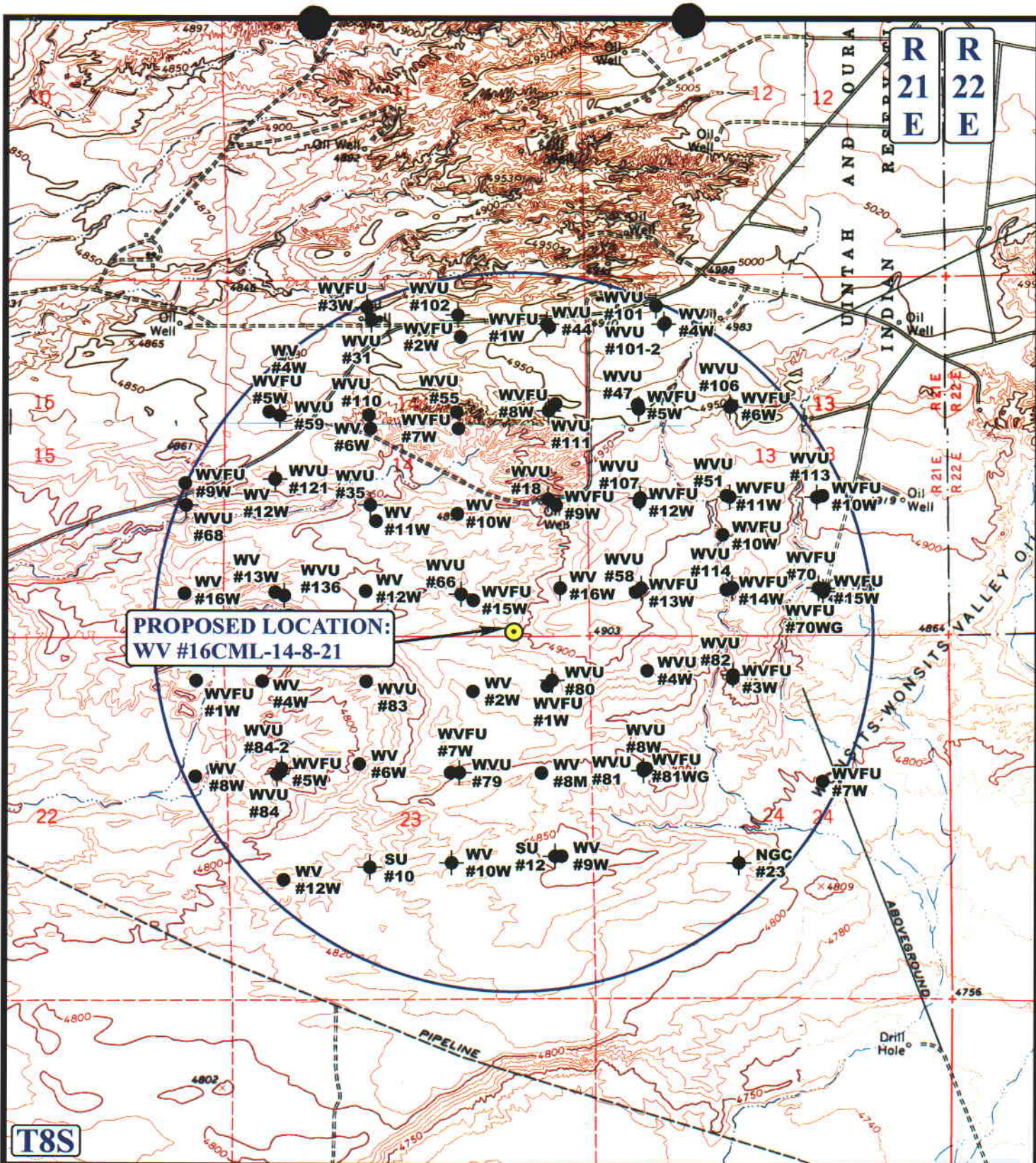


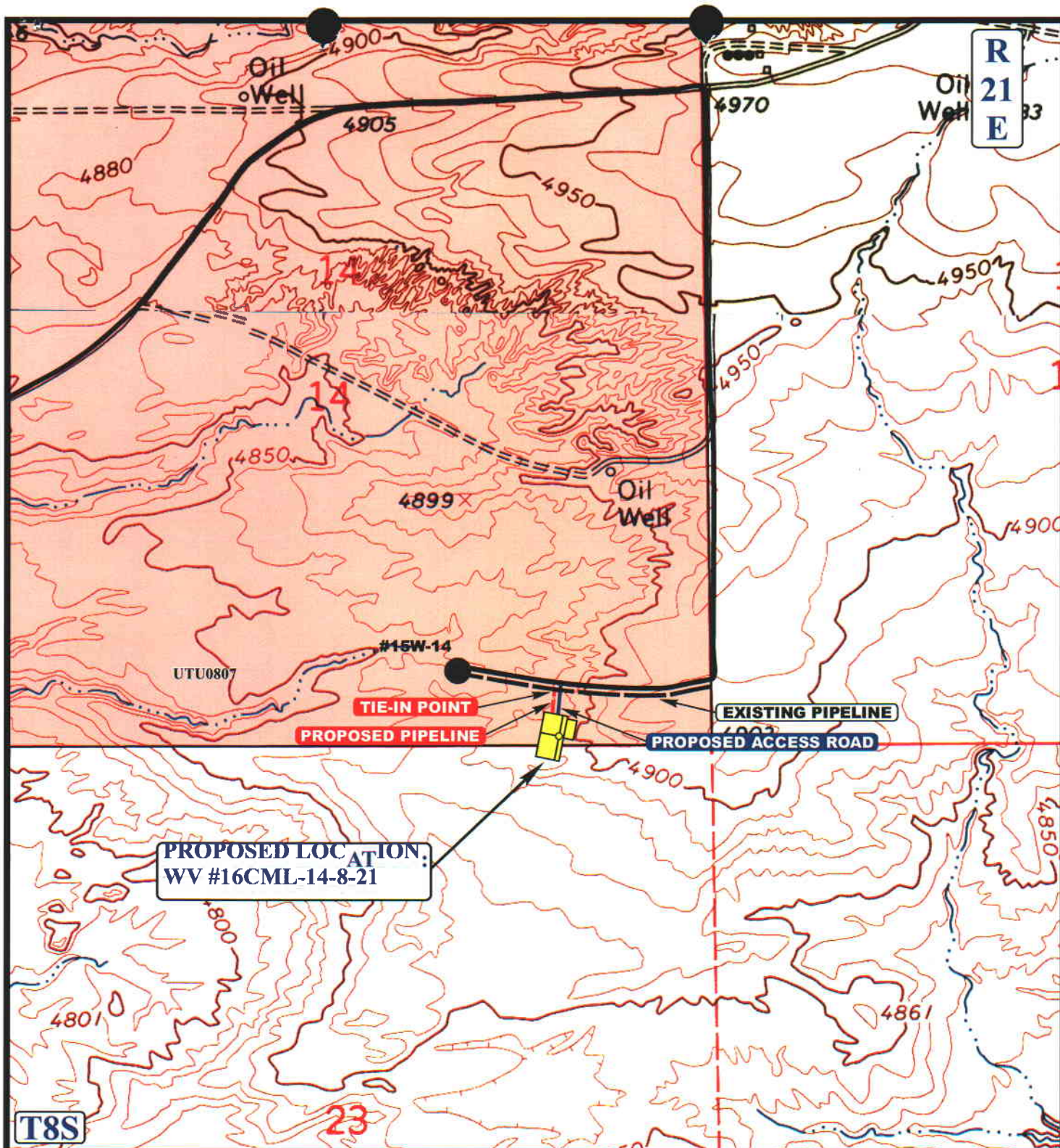
**TOPOGRAPHIC**  
**MAP**

**06** **07** **06**  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 00-00-00

**B**  
**TOPO**





APPROXIMATE TOTAL PIPELINE DISTANCE = 180' +/-

# LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED PIPELINE
- (SERVICING OTHER WELLS)



Utah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



## QUESTAR EXPLR. & PROD.

WV #16CML-14-8-21  
SECTION 14, T8S, R21E, S.L.B.&M.  
48' FSL 1092' FEL

TOPOGRAPHIC  
MAP

06 07 06  
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: L.K. REVISED: 00-00-00

D  
TOPO

**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 10/19/2006

API NO. ASSIGNED: 43-047-38737

WELL NAME: WV 16CML-14-8-21

OPERATOR: QEP UINTA BASIN, INC. ( N2460 )

PHONE NUMBER: 435-781-4331

CONTACT: JAN NELSON

**PROPOSED LOCATION:**

SESE 14 080S 210E

SURFACE: 0048 FSL 1092 FEL

BOTTOM: 0048 FSL 1092 FEL

COUNTY: UINTAH

LATITUDE: 40.11654 LONGITUDE: -109.5152

UTM SURF EASTINGS: 626534 NORTHINGS: 4441539

FIELD NAME: WONSITS VALLEY ( 710 )

INSPECT LOCATN BY: / /

**Tech Review**

**Initials**

**Date**

Engineering

Geology

Surface

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-0807

SURFACE OWNER: 2 - Indian

PROPOSED FORMATION: MVRD

COALBED METHANE WELL? NO

**RECEIVED AND/OR REVIEWED:**

☒ Plat  
☒ Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. ESB000024 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. 49-2153 )  
☒ RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

**LOCATION AND SITING:**

\_\_\_\_ R649-2-3.  
Unit: WONSITS VALLEY  
\_\_\_\_ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
\_\_\_\_ R649-3-3. Exception  
☒ Drilling Unit  
Board Cause No: 187-66  
Eff Date: 8-20-2006  
Siting: Suspends General Siting  
\_\_\_\_ R649-3-11. Directional Drill

COMMENTS:

*See Separate File*

STIPULATIONS:

*1- See Separate Approval*



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

October 27, 2006

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2006 Plan of Development Wonsits Valley Unit Uintah  
County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2006 within the Wonsits Valley Unit, Uintah County, Utah.

API#	WELL NAME	LOCATION
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(Proposed PZ MesaVerde)

43-047-38733 WV 01DML-13-8-21 Sec 13 T08S R21E 1242 FNL 0320 FEL		
43-047-38734 WV 04DML-13-8-21 Sec 13 T08S R21E 1142 FNL 1263 FWL		
43-047-38735 WV 16DML-13-8-21 Sec 13 T08S R21E 0419 FSL 0265 FEL		
43-047-38736 WV 03AML-14-8-21 Sec 14 T08S R21E 0127 FNL 2572 FWL		
43-047-38737 WV 16CML-14-8-21 Sec 14 T08S R21E 0048 FSL 1092 FEL		

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Wonsits Valley Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

October 30, 2006

QEP Uinta Basin, Inc.  
11002 E 17500 S  
Vernal, UT 84078

Re: Wonsits Valley 16CML-14-8-21 Well, 48' FSL, 1092' FEL, SE SE, Sec. 14,  
T. 8 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-38737.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Bureau of Land Management, Vernal District Office

Operator: QEP Uinta Basin, Inc.  
Well Name & Number Wonsits Valley 16CML-14-8-21  
API Number: 43-047-38737  
Lease: UTU-0807

Location: SE SE      Sec. 14      T. 8 South      R. 21 East

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

**ROUTING**

1. DJJ

2. CDW

Change of Operator (Well Sold)

**X - Operator Name Change/Merger**

The operator of the well(s) listed below has changed, effective:

**1/1/2007**

**FROM: (Old Operator):**

N2460-QEP Uinta Basin, Inc.  
 1050 17th St, Suite 500  
 Denver, CO 80265

Phone: 1 (303) 672-6900

**TO: ( New Operator):**

N5085-Questar E&P Company  
 1050 17th St, Suite 500  
 Denver, CO 80265

Phone: 1 (303) 672-6900

**CA No.**

**Unit:**

**WONSITS VALLEY UNIT**

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED LISTS				*				

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/19/2007
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/16/2007
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 1/31/2005
- a. Is the new operator registered in the State of Utah: Business Number: 764611-0143
- a. (R649-9-2)Waste Management Plan has been received on: IN PLACE
- b. Inspections of LA PA state/fee well sites complete on: n/a
- c. Reports current for Production/Disposition & Sundries on: n/a
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 4/23/2007 BIA
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 4/23/2007
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: \_\_\_\_\_
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: \_\_\_\_\_

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 4/30/2007 and 5/15/2007
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 4/30/2007 and 5/15/2007
- Bond information entered in RBDMS on: 4/30/2007 and 5/15/2007
- Fee/State wells attached to bond in RBDMS on: 4/30/2007 and 5/15/2007
- Injection Projects to new operator in RBDMS on: 4/30/2007 and 5/15/2007
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: ESB000024
- Indian well(s) covered by Bond Number: 799446
- a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965003033
- b. The **FORMER** operator has requested a release of liability from their bond on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS: THIS IS A COMPANY NAME CHANGE.**

**SOME WELL NAMES HAVE BEEN CHANGED AS REQUESTED**

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WVU 16	WV 16	NENE	15	080S	210E	4304715447	5265	Federal	WI	A
WVU 31	WV 31	NENW	14	080S	210E	4304715460	5265	Federal	WI	A
WVU 35	WV 35	NESW	14	080S	210E	4304715463	5265	Federal	WI	A
WV 36	WV 36	NESW	10	080S	210E	4304715464	5265	Federal	WI	A
WVU 41	WV 41	NENW	15	080S	210E	4304715469	5265	Federal	WI	A
WV 43	WV 43	SWSW	11	080S	210E	4304715471	5265	Federal	OW	P
WV 48	WV 48	SWNE	10	080S	210E	4304715476	5265	Federal	OW	P
WVU 50	WV 50	SWNE	15	080S	210E	4304715477	5265	Federal	WI	A
WV 53	WV 53	SWSE	10	080S	210E	4304720003	5265	Federal	OW	P
WVU 55	WV 55	SWNE	14	080S	210E	4304720005	5265	Federal	OW	P
WVU 59	WV 59	SWNW	14	080S	210E	4304720018	5265	Federal	WI	A
WVU 60	WV 60	SWSE	15	080S	210E	4304720019	5265	Federal	WI	A
WV 62	WV 62	SWSW	10	080S	210E	4304720024	5265	Federal	OW	P
WVU 65	WV 65	SWNW	15	080S	210E	4304720041	5265	Federal	OW	P
WVU 67	WV 67	NESW	15	080S	210E	4304720043	5265	Federal	WI	A
WVU 68	WV 68	NESE	15	080S	210E	4304720047	5265	Federal	WI	A
WVU 83	WV 83 WG	NENW	23	080S	210E	4304720205	14864	Federal	GW	S
WV 97	WV 97	NWSW	11	080S	210E	4304730014	5265	Federal	WI	A
WVU 103	WV 103	NWNW	14	080S	210E	4304730021	5265	Federal	OW	P
WVU 104	WV 104	NWNE	15	080S	210E	4304730022	5265	Federal	OW	P
WV 105	WV 105	SESE	10	080S	210E	4304730023	5265	Federal	OW	P
WVU 109	WV 109	SENE	15	080S	210E	4304730045	5265	Federal	OW	P
WVU 110	WV 110	SENE	14	080S	210E	4304730046	5265	Federal	OW	P
WVU 112	WV 112	SENE	15	080S	210E	4304730048	5265	Federal	OW	P
WVU 124	WV 124	NWSE	15	080S	210E	4304730745	5265	Federal	OW	P
WVU 126	WV 126	NWNE	21	080S	210E	4304730796	5265	Federal	WI	A
WV 128	WV 128	SESW	10	080S	210E	4304730798	5265	Federal	OW	P
WVU 132	WV 132	NWSW	15	080S	210E	4304730822	5265	Federal	OW	P
WVU 136	WV 136	NENW	21	080S	210E	4304731047	5265	Federal	OW	S
WV 137	WV 137	SENE	11	080S	210E	4304731523	5265	Federal	OW	P
WV 28-2	WV 28-2	NESW	11	080S	210E	4304731524	99990	Federal	WI	A
WVU 133	WV 133	SESW	15	080S	210E	4304731706	5265	Federal	OW	P
WVU 140	WV 140	NWNW	15	080S	210E	4304731707	5265	Federal	WI	A
WV 40-2	WV 40-2	NESE	10	080S	210E	4304731798	5265	Federal	WI	A
WVU 144	WV 144	SENE	10	080S	210E	4304731807	5265	Federal	OW	P
WV 143	WV 143	NWSE	10	080S	210E	4304731808	5265	Federal	WI	A
WVU 145	WV 145	NWNW	18	080S	220E	4304731820	14864	Federal	GW	P
WVU 121	WV 121	NWSW	14	080S	210E	4304731873	5265	Federal	OW	TA
WVU 135-2	WV 135-2	NENE	21	080S	210E	4304732016	5265	Federal	OW	P
WVU 130	WV 130	NWNW	22	080S	210E	4304732307	5265	Federal	OW	P
WVU 71-2	WV 71-2	SWSW	15	080S	210E	4304732449	5265	Federal	WI	A

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WVFU 119	WV 119	NWNW	21	080S	210E	4304732461	5265	Federal	OW	P
WVFU 120	WV 120	NENW	22	080S	210E	4304732462	5265	Federal	WI	A
WVFU 54 WG	WV 54 WG	SWSE	07	080S	220E	4304732821	14864	Federal	GW	P
WVFU 69 WG	WV 69 WG	SWNE	18	080S	220E	4304732829	14864	Federal	GW	P
WVFU 38 WG	WV 38 WG	SWNW	08	080S	220E	4304732831	14864	Federal	GW	P
WVFU 49 WG	WV 49 WG	SWSW	08	080S	220E	4304732832	14864	Federal	GW	P
WVFU 138 WG	WV 138 WG	SWNW	18	080S	220E	4304733054	14864	Federal	GW	P
WVFU 14 WG	WV 14 WG	SWSE	12	080S	210E	4304733070	14864	Federal	GW	P
WVFU 11 WG	WV 11 WG	SWNE	12	080S	210E	4304733085	14864	Federal	GW	P
WVFU 81 WG	WV 81 WG	SWNW	24	080S	210E	4304733086	14864	Federal	GW	P
WVFU 146 WG	WV 146 WG	NWNW	19	080S	220E	4304733128	14864	Federal	GW	P
WVFU 1W-14-8- 21	WV 1W-14-8- 21	NENE	14	080S	210E	4304733220	14864	Federal	GW	P
WVFU 5W-13- 8-21	WV 5W-13- 8-21	SWNW	13	080S	210E	4304733221	14864	Federal	GW	P
WVFU 46 WG	WV 46 WG	NESE	07	080S	220E	4304733241	14864	Federal	GW	P
WVFU 9W-14-8-21	WV 9W-14-8-21	NESE	14	080S	210E	4304733269	14864	Federal	GW	P
WVFU 7W-13-8-21	WV 7W-13-8-21	SWNE	13	080S	210E	4304733270	14864	Federal	GW	P
WVFU 1W-18-8-22	WV 1W-18-8-22	NENE	18	080S	220E	4304733294	14864	Federal	GW	P
WVFU 11W-8-8-22	WV 11W-8-8-22	NESW	08	080S	220E	4304733295	14864	Federal	GW	P
WVFU 3W-8-8-22	WV 3W-8-8-22	NENW	08	080S	220E	4304733493	14864	Federal	GW	S
WVFU 5W-7-8-22	WV 5W-7-8-22	SWNW	07	080S	220E	4304733494	14864	Federal	GW	P
WVFU 11W-7-8-22	WV 11W-7-8-22	NESW	07	080S	220E	4304733495	14864	Federal	GW	P
WVFU 13W-7-8-22	WV 13W-7-8-22	SWSW	07	080S	220E	4304733496	14864	Federal	GW	P
WVFU 1W-7-8-22	WV 1W-7-8-22	NENE	07	080S	220E	4304733501	14864	Federal	GW	P
WVFU 3W-7-8-22	WV 3W-7-8-22	NENW	07	080S	220E	4304733502	14864	Federal	GW	P
WV 7WRG-7-8-22	WV 7WRG-7-8-22	SWNE	07	080S	220E	4304733503	5265	Federal	OW	P
WVFU 16W-9-8-21	WV 16W-9-8-21	SESE	09	080S	210E	4304733529	14864	Federal	GW	P
WVFU 1W-12-8-21	WV 1W-12-8-21	NENE	12	080S	210E	4304733531	14864	Federal	GW	P
WVFU 1W-13-8-21	WV 1W-13-8-21	NENE	13	080S	210E	4304733532	14864	Federal	GW	P
WVFU 3W-18-8-22	WV 3W-18-8-22	NENW	18	080S	220E	4304733533	14864	Federal	GW	P
WVFU 9W-12-8-21	WV 9W-12-8-21	NESE	12	080S	210E	4304733534	14864	Federal	GW	P
WVFU 11W-12-8-21	WV 11W-12-8-21	NESW	12	080S	210E	4304733535	14864	Federal	GW	P
WVFU 11W-13-8-21	WV 11W-13-8-21	NESW	13	080S	210E	4304733536	14864	Federal	GW	P
WVFU 13W-12-8-21	WV 13W-12-8-21	SWSW	12	080S	210E	4304733537	14864	Federal	GW	S
WVFU 13W-18-8-22	WV 13W-18-8-22	SWSW	18	080S	220E	4304733538	14864	Federal	GW	P
WVFU 16G-9-8-21	WV 16G-9-8-21	SESE	09	080S	210E	4304733565	5265	Federal	OW	P
WVFU 1W-21-8-21	WV 1W-21-8-21	NENE	21	080S	210E	4304733602	14864	Federal	GW	P
WVFU 3W-13-8-21	WV 3W-13-8-21	NENW	13	080S	210E	4304733603	14864	Federal	GW	S
WVFU 3W-22-8-21	WV 3W-22-8-21	NENW	22	080S	210E	4304733604	14864	Federal	GW	P
WVFU 3W-24-8-21	WV 3W-24-8-21	NENW	24	080S	210E	4304733605	14864	Federal	GW	P
WVFU 13W-13-8-21	WV 13W-13-8-21	SWSW	13	080S	210E	4304733606	14864	Federal	GW	S
WVFU 13W-14-8-21	WV 13W-14-8-21	SWSW	14	080S	210E	4304733607	14864	Federal	GW	P

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WVFU 15W-13-8-21	WV 15W-13-8-21	SWSE	13	080S	210E	4304733608	14864	Federal	GW	S
WVFU 1W-24-8-21	WV 1W-24-8-21	NENE	24	080S	210E	4304733613	14864	Federal	GW	P
WVFU 11W-18-8-22	WV 11W-18-8-22	NESW	18	080S	220E	4304733626	14864	Federal	GW	P
WV 2W-10-8-21	WV 2W-10-8-21	NWNE	10	080S	210E	4304733655	14864	Federal	GW	P
WV 4W-11-8-21	WV 4W-11-8-21	NWNW	11	080S	210E	4304733657	14864	Federal	GW	P
WV 12W-10-8-21	WV 12W-10-8-21	NWSW	10	080S	210E	4304733659	14864	Federal	GW	S
WV 12G-10-8-21	WV 12G-10-8-21	NWSW	10	080S	210E	4304733660	5265	Federal	OW	P
WVFU 15W-9-8-21	WV 15W-9-8-21	SWSE	09	080S	210E	4304733661	14864	Federal	GW	P
WVFU 15G-9-8-21	WV 15G-9-8-21	SWSE	09	080S	210E	4304733662	5265	Federal	OW	P
WVFU 2W-13-8-21	WV 2W-13-8-21	NWNE	13	080S	210E	4304733791	14864	Federal	GW	P
WVFU 6W-13-8-21	WV 6W-13-8-21	SENW	13	080S	210E	4304733792	14864	Federal	GW	P
WVFU 8W-13-8-21	WV 8W-13-8-21	SENE	13	080S	210E	4304733793	14864	Federal	GW	P
WV 10W-1-8-21	WV 10W-1-8-21	NWSE	01	080S	210E	4304733794	14864	Federal	GW	TA
WVFU 10W-13-8-21	WV 10W-13-8-21	NWSE	13	080S	210E	4304733795	14864	Federal	GW	P
WVFU 12W-7-8-22	WV 12W-7-8-22	NWSW	07	080S	220E	4304733808	14864	Federal	GW	P
WVFU 6W-8-8-22	WV 6W-8-8-22	SENW	08	080S	220E	4304733811	14864	Federal	GW	P
WVFU 7W-8-8-22	WV 7W-8-8-22	SWNE	08	080S	220E	4304733812	14864	Federal	GW	S
WVFU 10W-7-8-22	WV 10W-7-8-22	NWSE	07	080S	220E	4304733813	14864	Federal	GW	P
WVFU 12W-8-8-22	WV 12W-8-8-22	NWSW	08	080S	220E	4304733815	14864	Federal	GW	P
WVFU 14W-7-8-22	WV 14W-7-8-22	SESW	07	080S	220E	4304733816	14864	Federal	GW	P
WVFU 16W-7-8-22	WV 16W-7-8-22	SESE	07	080S	220E	4304733817	14864	Federal	GW	P
WVFU 6W-7-8-22	WV 6W-7-8-22	SENW	07	080S	220E	4304733828	14864	Federal	GW	P
WVFU 6W-18-8-22	WV 6W-18-8-22	SENW	18	080S	220E	4304733842	14864	Federal	GW	P
WVFU 6WC-18-8-22	WV 6WC-18-8-22	SENW	18	080S	220E	4304733843	14864	Federal	GW	P
WVFU 6WD-18-8-22	WV 6WD-18-8-22	SENW	18	080S	220E	4304733844	14864	Federal	GW	P
WVFU 5W-23-8-21	WV 5W-23-8-21	SWNW	23	080S	210E	4304733860	14864	Federal	GW	P
WVFU 7W-23-8-21	WV 7W-23-8-21	SWNE	23	080S	210E	4304733861	14864	Federal	GW	P
WVFU 8W-12-8-21	WV 8W-12-8-21	SENE	12	080S	210E	4304733862	14864	Federal	GW	P
WVFU 10W-12-8-21	WV 10W-12-8-21	NWSE	12	080S	210E	4304733863	14864	Federal	GW	P
WVFU 14W-12-8-21	WV 14W-12-8-21	SESW	12	080S	210E	4304733864	14864	Federal	GW	P
WVFU 16W-12-8-21	WV 16W-12-8-21	SESE	12	080S	210E	4304733865	14864	Federal	GW	P
WVFU 1W-15-8-21	WV 1W-15-8-21	NENE	15	080S	210E	4304733902	14864	Federal	GW	S
WVFU 1W-22-8-21	WV 1W-22-8-21	NENE	22	080S	210E	4304733903	14864	Federal	GW	P
WVFU 1W-23-8-21	WV 1W-23-8-21	NENE	23	080S	210E	4304733904	14864	Federal	GW	P
WV 6W-11-8-21	WV 6W-11-8-21	SENW	11	080S	210E	4304733906	14864	Federal	GW	P
WVFU 7W-24-8-21	WV 7W-24-8-21	SWNE	24	080S	210E	4304733908	14864	Federal	GW	P
WV 10W-11-8-21	WV 10W-11-8-21	NWSE	11	080S	210E	4304733910	14864	Federal	GW	P
WVFU 11W-15-8-21	WV 11W-15-8-21	NESW	15	080S	210E	4304733911	14864	Federal	GW	P
WV 13W-11-8-21	WV 13W-11-8-21	SWSW	11	080S	210E	4304733913	14864	Federal	GW	S
WVFU 13W-15-8-21	WV 13W-15-8-21	SWSW	15	080S	210E	4304733914	14864	Federal	GW	P
WV 15W-10-8-21	WV 15W-10-8-21	SWSE	10	080S	210E	4304733916	14864	Federal	GW	P

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WVFU 15W-15-8-21	WV 15W-15-8-21	SWSE	15	080S	210E	4304733917	14864	Federal	GW	P
WVFU 5W-14-8-21	WV 5W-14-8-21	SWNW	14	080S	210E	4304733953	14864	Federal	GW	P
WVFU 7W-14-8-21	WV 7W-14-8-21	SWNE	14	080S	210E	4304733955	14864	Federal	GW	P
WV 8W-11-8-21	WV 8W-11-8-21	SENE	11	080S	210E	4304733957	14864	Federal	GW	S
WVFU 8W-14-8-21	WV 8W-14-8-21	SENE	14	080S	210E	4304733958	14864	Federal	GW	P
WVFU 9W-15-8-21	WV 9W-15-8-21	NESE	15	080S	210E	4304733959	14864	Federal	GW	P
WVFU 12W-13-8-21	WV 12W-13-8-21	NWSW	13	080S	210E	4304733961	14864	Federal	GW	P
WVFU 14W-13-8-21	WV 14W-13-8-21	SESW	13	080S	210E	4304733962	14864	Federal	GW	P
WVFU 15W-14-8-21	WV 15W-14-8-21	SWSE	14	080S	210E	4304733963	14864	Federal	GW	P
WVFU 2W-18-8-22	WV 2W-18-8-22	NWNE	18	080S	220E	4304733986	14864	Federal	GW	P
WV 8W-18-8-22	WV 8W-18-8-22	SENE	18	080S	220E	4304733989	14864	Federal	GW	P
WVFU 10W-18-8-22	WV 10W-18-8-22	NWSE	18	080S	220E	4304733991	14864	Federal	GW	P
WVFU 12W-18-8-22	WV 12W-18-8-22	NWSW	18	080S	220E	4304733993	14864	Federal	GW	P
WV 14W-18-8-22	WV 14W-18-8-22	SESW	18	080S	220E	4304733995	14864	Federal	GW	P
WVFU 8W-1-8-21	WV 8W-1-8-21	SENE	01	080S	210E	4304734009	14864	Federal	GW	DRL
WV 4W-17-8-22	WV 4W-17-8-22	NWNW	17	080S	220E	4304734038	14864	Federal	GW	P
WV 12G-1-8-21	WV 12G-1-8-21	NWSW	01	080S	210E	4304734108	5265	Federal	OW	TA
WV 2W-14-8-21	WV 2W-14-8-21	NWNE	14	080S	210E	4304734140	14864	Federal	GW	P
GH 2W-21-8-21	GH 2W-21-8-21	NWNE	21	080S	210E	4304734141	14864	Federal	GW	P
WV 2W-23-8-21	WV 2W-23-8-21	NWNE	23	080S	210E	4304734142	14864	Federal	GW	P
GH 3W-21-8-21	WV 3W-21-8-21	NENW	21	080S	210E	4304734143	14864	Federal	GW	P
WV 4W-13-8-21	WV 4W-13-8-21	NWNW	13	080S	210E	4304734144	14864	Federal	GW	P
GH 4W-21-8-21	WV 4W-21-8-21	NWNW	21	080S	210E	4304734145	14864	Federal	GW	P
WV 4W-22-8-21	WV 4W-22-8-21	NWNW	22	080S	210E	4304734146	14864	Federal	GW	P
WV 16W-11-8-21	WV 16W-11-8-21	SESE	11	080S	210E	4304734155	14864	Federal	GW	TA
WV 3W-19-8-22	WV 3W-19-8-22	NENW	19	080S	220E	4304734187	14864	Federal	GW	P
WV 4W-23-8-21	WV 4W-23-8-21	NWNW	23	080S	210E	4304734188	14864	Federal	GW	P
WV 6W-23-8-21	WV 6W-23-8-21	SENE	23	080S	210E	4304734189	14864	Federal	GW	P
WV 2W-15-8-21	WV 2W-15-8-21	NWNE	15	080S	210E	4304734242	14864	Federal	GW	P
WV 2W-22-8-21	WV 2W-22-8-21	NWNE	22	080S	210E	4304734243	14864	Federal	GW	P
WV 4W-14-8-21	WV 4W-14-8-21	NWNW	14	080S	210E	4304734244	14864	Federal	GW	P
WV 6W-12-8-21	WV 6W-12-8-21	SENE	12	080S	210E	4304734245	5265	Federal	GW	S
WV 7W-15-8-21	WV 7W-15-8-21	SWNE	15	080S	210E	4304734246	14864	Federal	GW	P
WV 8W-15-8-21	WV 8W-15-8-21	SENE	15	080S	210E	4304734247	14864	Federal	GW	P
WV 12W-12-8-21	WV 12W-12-8-21	NWSW	12	080S	210E	4304734248	14864	Federal	GW	S
WV 14W-15-8-21	WV 14W-15-8-21	SESW	15	080S	210E	4304734249	14864	Federal	GW	P
WV 16W-10-8-21	WV 16W-10-8-21	SESE	10	080S	210E	4304734250	14864	Federal	GW	P
WV 16W-15-8-21	WV 16W-15-8-21	SESE	15	080S	210E	4304734251	14864	Federal	GW	P
WV 2W-12-8-21	WV 2W-12-8-21	NWNE	12	080S	210E	4304734265	14864	Federal	GW	OPS
WV 3W-12-8-21	WV 3W-12-8-21	NENW	12	080S	210E	4304734267	14864	Federal	GW	OPS
WV 4W-12-8-21	WV 4D-12-8-21	NWNW	12	080S	210E	4304734268	12436	Federal	GW	DRL

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WV 5W-12-8-21	WV 5W-12-8-21	SWNW	12	080S	210E	4304734270	14864	Federal	GW	OPS
WV 6W-14-8-21	WV 6W-14-8-21	SENW	14	080S	210E	4304734271	14864	Federal	GW	P
WV 9W-11-8-21	WV 9W-11-8-21	NESE	11	080S	210E	4304734274	14864	Federal	GW	DRL
WV 10W-14-8-21	WV 10W-14-8-21	NWSE	14	080S	210E	4304734275	14864	Federal	GW	S
WV 11W-14-8-21	WV 11W-14-8-21	NESW	14	080S	210E	4304734277	14864	Federal	GW	P
WV 12W-14-8-21	WV 12W-14-8-21	NWSW	14	080S	210E	4304734279	14864	Federal	GW	S
WV 14M-11-8-21	WV 14M-11-8-21	SESW	11	080S	210E	4304734280	14864	Federal	GW	P
WV 14W-14-8-21	WV 14W-14-8-21	SESW	14	080S	210E	4304734281	14864	Federal	GW	P
WV 16W-14-8-21	WV 16G-14-8-21	SESE	14	080S	210E	4304734283	5265	Federal	OW	S
WV 3MU-15-8-21	WV 3MU-15-8-21	NENW	15	080S	210E	4304734289	14864	Federal	GW	P
WV 4MU-15-8-21	WV 4MU-15-8-21	NWNW	15	080S	210E	4304734291	14864	Federal	GW	P
WV 5MU-15-8-21	WV 5MU-15-8-21	SWNW	15	080S	210E	4304734293	14864	Federal	GW	P
WV 6W-15-8-21	WV 6W-15-8-21	SENW	15	080S	210E	4304734294	14864	Federal	GW	P
WV 10W-15-8-21	WV 10W-15-8-21	NWSE	15	080S	210E	4304734295	14864	Federal	GW	P
WVU 4W-24-8-21	WV 4W-24-8-21	NWNW	24	080S	210E	4304734330	14864	Federal	GW	P
WV 8M-23-8-21	WV 8M-23-8-21	SENE	23	080S	210E	4304734339	14864	Federal	GW	P
WVU 8W-24-8-21	WV 8W-24-8-21	SENE	24	080S	210E	4304734340	14864	Federal	GW	P
WV 2W-8-8-22	WV 2W-8-8-22	NWNE	08	080S	220E	4304734468	14864	Federal	GW	P
WV 8W-7-8-22	WV 8W-7-8-22	SENE	07	080S	220E	4304734469	14864	Federal	GW	S
WV 8W-22-8-21	WV 8W-22-8-21	SENE	22	080S	210E	4304734564	14864	Federal	GW	P
WV 3G-8-8-22	WV 3G-8-8-22	NENW	08	080S	220E	4304734596	5265	Federal	OW	TA
WV 14MU-10-8-21	WV 14MU-10-8-21	SESW	10	080S	210E	4304735879	14864	Federal	GW	P
WV 13MU-10-8-21	WV 13MU-10-8-21	SWSW	10	080S	210E	4304736305	14864	Federal	GW	P
WV 3DML-13-8-21	WV 3D-13-8-21	SENW	13	080S	210E	4304737923	14864	Federal	GW	DRL
WV 14DML-12-8-21	WV 14DML-12-8-21	SESW	12	080S	210E	4304737924	14864	Federal	GW	DRL
WV 15AML-12-8-21	WV 15AML-12-8-21	NWSE	12	080S	210E	4304737925		Federal	GW	APD
WV 13DML-10-8-21	WV 13DML-10-8-21	SWSW	10	080S	210E	4304737926	14864	Federal	GW	P
WV 4DML-15-8-21	WV 4DML-15-8-21	NWNW	15	080S	210E	4304737927	14864	Federal	GW	DRL
WV 13AD-8-8-22	WV 13AD-8-8-22	SWSW	08	080S	220E	4304737945		Federal	GW	APD
WV 11AML-14-8-21	WV 11AD-14-8-21	NWSE	14	080S	210E	4304738049	15899	Federal	GW	APD
WV 11DML-14-8-21	WV 11DML-14-8-21	SESW	14	080S	210E	4304738050		Federal	GW	APD
WV 4AML-19-8-22	WV 4AML-19-8-22	NWNW	19	080S	220E	4304738051		Federal	GW	APD
WV 13CML-8-8-22	WV 13CML-8-8-22	SWSW	08	080S	220E	4304738431		Federal	GW	APD
WV 13BML-18-8-22	WV 13BML-18-8-22	SWSW	18	080S	220E	4304738432		Federal	GW	APD
WV 8BML-18-8-22	WV 8BML-18-8-22	E/NE	18	080S	220E	4304738433		Federal	GW	APD
WV 6ML-24-8-21	WV 6-24-8-21	SENW	24	080S	210E	4304738663		Federal	GW	APD
WV 2ML-24-8-21	WV 2ML-24-8-21	NWNE	24	080S	210E	4304738664		Federal	GW	APD
WV 1DML-13-8-21	WV 1DML-13-8-21	NENE	13	080S	210E	4304738733		Federal	GW	APD
WV 4DML-13-8-21	WV 4DML-13-8-21	NWNW	13	080S	210E	4304738734		Federal	GW	APD
WV 3AML-14-8-21	WV 3AML-14-8-21	NENW	14	080S	210E	4304738736		Federal	GW	APD
WV 16CML-14-8-21	WV 16C-14-8-21	SESE	14	080S	210E	4304738737		Federal	GW	APD

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WVU 21	WV 21	NENE	16	080S	210E	4304715452	99990	State	WI	A
WVU 32	WV 32	NENW	16	080S	210E	4304716513	5265	State	OW	P
WVU 72	WV 72	SWSW	16	080S	210E	4304720058	99990	State	WI	A
WVU 73	WV 73	NESE	16	080S	210E	4304720066	5265	State	WI	A
WVU 74	WV 74	SWSE	16	080S	210E	4304720078	5265	State	OW	P
WVU 75	WV 75	SWNE	16	080S	210E	4304720085	5265	State	OW	P
WVU 78	WV 78	NESW	16	080S	210E	4304720115	99990	State	WI	A
WVU 134	WV 134	SESE	16	080S	210E	4304731118	5265	State	OW	P
WVU 141	WV 141	NWSE	16	080S	210E	4304731609	5265	State	OW	P
WVU 127	WV 127	SENE	16	080S	210E	4304731611	5265	State	OW	P
WVU 142	WV 142	SESW	16	080S	210E	4304731612	5265	State	OW	P
WVUFU 9W-13-8-21	WV 9W-13-8-21	NESE	13	080S	210E	4304733223	14864	State	GW	S
WVUFU 2W-16-8-21	WV 2W-16-8-21	NWNE	16	080S	210E	4304733246	14864	State	GW	P
WVUFU 2G-16-8-21	WV 2G-16-8-21	NWNE	16	080S	210E	4304733247	5265	State	OW	P
WVUFU 6W-16-8-21	WV 6W-16-8-21	SENW	16	080S	210E	4304733527	14864	State	GW	P
WVUFU 6G-16-8-21	WV 6G-16-8-21	SENW	16	080S	210E	4304733564	5265	State	OW	P
WVUFU 16W-2-8-21	WV 16W-2-8-21	SESE	02	080S	210E	4304733645	5265	State	OW	S
WVUFU 9W-2-8-21	WV 9W-2-8-21	NESE	02	080S	210E	4304733648	14864	State	GW	P
WVUFU 12W-16-8-21	WV 12W-16-8-21	NWSW	16	080S	210E	4304733649	14864	State	GW	P
WVUFU 12G-16-8-21	WV 12G-16-8-21	NWSW	16	080S	210E	4304733650	5265	State	OW	P
WVUFU 16W-13-8-21	WV 16W-13-8-21	SESE	13	080S	210E	4304733796	14864	State	GW	P
WV 10G-2-8-21	WV 10G-2-8-21	NWSE	02	080S	210E	4304734035	5265	State	OW	P
WV 14G-2-8-21	WV 14G-2-8-21	SESW	02	080S	210E	4304734036	5265	State	OW	P
WV 13G-2-8-21	WV 13G-2-8-21	SWSW	02	080S	210E	4304734068	5265	State	OW	P
WV 5G-16-8-21	WV 5G-16-8-21	SWNW	16	080S	210E	4304734107	5265	State	OW	P
WV 11W-16-8-21	WV 11W-16-8-21	NESW	16	080S	210E	4304734190	14864	State	GW	P
WV 13W-16-8-21	WV 13W-16-8-21	SWSW	16	080S	210E	4304734191	14864	State	GW	P
WV 14W-16-8-21	WV 14W-16-8-21	SESW	16	080S	210E	4304734192	14864	State	GW	P
WV 15W-16-8-21	WV 15W-16-8-21	SWSE	16	080S	210E	4304734224	14864	State	GW	P
WV 16W-16-8-21	WV 16W-16-8-21	SESE	16	080S	210E	4304734225	14864	State	GW	P
WV 1MU-16-8-21	WV 1MU-16-8-21	NENE	16	080S	210E	4304734288	14864	State	GW	P
WV 3W-16-8-21	WV 3W-16-8-21	NENW	16	080S	210E	4304734290		State	GW	LA
WV 4W-16-8-21	WV 4W-16-8-21	NWNW	16	080S	210E	4304734292	12436	State	D	PA
WVU 5W-16-8-21	WV 5W-16-8-21	SWNW	16	080S	210E	4304734321	14864	State	GW	P
WV 7W-16-8-21	WV 7W-16-8-21	SWNE	16	080S	210E	4304734322	14864	State	GW	P
WV 8ML-16-8-21	WV 8ML-16-8-21	SENE	16	080S	210E	4304734323	14864	State	GW	P
WV 9W-16-8-21	WV 9W-16-8-21	NESE	16	080S	210E	4304734325	14864	State	GW	P
WV 10W-16-8-21	WV 10W-16-8-21	NWSE	16	080S	210E	4304734326	14864	State	GW	P
WV 12BML-16-8-21	WV 12BML-16-8-21	SWNW	16	080S	210E	4304737824	14864	State	GW	P
WV 12DML-16-8-21	WV 12D-16-8-21	NWSW	16	080S	210E	4304737870		State	GW	APD
WV 15CML-16-8-21	WV 15CML-16-8-21	SESW	16	080S	210E	4304737871	14864	State	GW	P

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
WONSITS VALLEY UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
WV 15DML-16-8-21	WV 15DML-16-8-21	SWSE	16	080S	210E	4304737872		State	GW	APD
WV 16DML-13-8-21	WV 16DML-13-8-21	SESE	13	080S	210E	4304738735		State	GW	APD

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: see attached
2. NAME OF OPERATOR: QUESTAR EXPLORATION AND PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: see attached
3. ADDRESS OF OPERATOR: 1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265		7. UNIT or CA AGREEMENT NAME: see attached
4. LOCATION OF WELL FOOTAGES AT SURFACE: attached		8. WELL NAME and NUMBER: see attached
PHONE NUMBER: (303) 308-3068		9. API NUMBER: attached
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT:

COUNTY: Uintah

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: 1/1/2007	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: Operator Name Change
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective January 1, 2007 operator of record, QEP Uinta Basin, Inc., will hereafter be known as QUESTAR EXPLORATION AND PRODUCTION COMPANY. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024)

Utah State Bond Number: 965003033

Fee Land Bond Number: 965003033

Current operator of record, QEP UINTA BASIN, INC., hereby resigns as operator of the properties as described on the attached list.

Jay B. Neese, Executive Vice President, QEP Uinta Basin, Inc.

Successor operator of record, QUESTAR EXPLORATION AND PRODUCTION COMPANY, hereby assumes all rights, duties and obligations as operator of the properties as described on the attached list

Jay B. Neese, Executive Vice President  
Questar Exploration and Production Company

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Supervisor, Regulatory Affairs  
SIGNATURE DATE 3/16/2007

(This space for State use only)

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STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1 TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER \_\_\_\_\_

2. NAME OF OPERATOR:  
QUESTAR EXPLORATION AND PRODUCTION COMPANY

3 ADDRESS OF OPERATOR:  
1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 308-3068

4 LOCATION OF WELL  
FOOTAGES AT SURFACE: attached

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

5. LEASE DESIGNATION AND SERIAL NUMBER:  
see attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  
see attached

7. UNIT or CA AGREEMENT NAME:  
see attached

8. WELL NAME and NUMBER:  
see attached

9. API NUMBER:  
attached

10. FIELD AND POOL, OR WILDCAT:

COUNTY: Uintah

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>1/1/2007</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Well Name Changes</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PER THE ATTACHED LIST OF WELLS, QUESTAR EXPLORATION AND PRODUCTION COMPANY REQUESTS THAT THE INDIVIDUAL WELL NAMES BE UPDATED IN YOUR RECORDS.

NAME (PLEASE PRINT) Debra K. Stanberry

TITLE Supervisor, Regulatory Affairs

SIGNATURE  DATE 4/17/2007

(This space for State use only)

RECEIVED

APR 19 2007

DIV. OF OIL, GAS & MINING



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155



IN REPLY REFER TO  
3180  
UT-922

April 23, 2007

Questar Exploration and Production Company  
1050 17th Street, Suite 500  
Denver, Colorado 80265

Re: Wonsits Valley Unit  
Uintah County, Utah

Gentlemen:

On April 12, 2007, we received an indenture dated April 6, 2007, whereby QEP Uinta Basin, Inc. resigned as Unit Operator and Questar Exploration and Production Company was designated as Successor Unit Operator for the Wonsits Valley Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective April 23, 2007. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Wonsits Valley Unit Agreement.

Your nationwide oil and gas bond No. ESB000024 will be used to cover all federal operations within the Wonsits Valley Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Greg J. Noble

Greg J. Noble  
Acting Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Vernal (w/enclosure)  
SITLA  
Division of Oil, Gas & Mining  
File - Wonsits Valley Unit (w/enclosure)  
Agr. Sec. Chron  
Reading File  
Central Files

UT922:TAThompson:tt:4/23/07

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APR 30 2007

DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*

FORM APPROVED  
OMB NO. 1040-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

TYPE OF WORK

DRILL ☒

DEEPEN ☐

TYPE OF WELL

☐

☒

☐

SINGLE  
ZONE

MULTIPLE  
ZONE

OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

QEP UINTA BASIN, INC.

Contact: Jan Nelson

E-Mail: jan.nelson@questar.com

3. ADDRESS

11002 E. 17500 S. Vernal, Ut 84078

Telephone number

Phone 435-781-4331 Fax 435-781-4323

4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements\*)

At Surface

48' FSL 1092' FEL SESE SECTION 14 T8S R21E

At proposed production zone

14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE\*

10 +/- EAST OF OURAY, UTAH

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(also to nearest drig, unit line if any)

48' +/-

16. NO. OF ACRES IN LEASE

1280.00

17. NO. OF ACRES ASSIGNED TO THIS WELL

20

18. DISTANCE FROM PROPOSED location to nearest well, drilling,  
completed, applied for, on this lease, ft

1000' +/-

19. PROPOSED DEPTH

11,325'

20. BLM/BIA Bond No. on file  
ESB000024

21. ELEVATIONS (Show whether DF, RT, GR, ect.)

4890.1' GR

22. DATE WORK WILL START

ASAP

23. Estimated duration

20 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A surface Use Plan ( if location is on National Forest System Lands,  
the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see  
Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the  
authorized officer.

SIGNED

*Jan Nelson*

Name (printed/typed) Jan Nelson

TITLE Regulatory Affairs

RECEIVED

MAR 06 2007

DATE 10-16-06

(This space for Federal or State office use)

DIV. OF OIL, GAS & MINING

PERMIT NO.

APPROVAL DATE

CONDITIONS OF APPROVAL ATTACHED

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

*Jim Hough*

TITLE

Assistant Field Manager  
Lands & Mineral Resources

DATE

2/23/2007

\*See Instructions On Reverse Side

Title 18 U.S.C Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the

United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

VERNAL FIELD OFFICE

NOTICE OF APPROVAL

CONFIDENTIAL

UDOGM

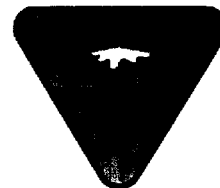
NO NOS

07BM4808A



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East VERNAL, UT 84078 (435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

Company: QEP Uinta Basin, Inc.  
Well No: WV 16CML-14-8-21  
API No: 43-047-38737

Location: SESE, Sec 14, T8S, R21E  
Lease No: UTU-0807  
Agreement: Wonsits Valley Unit

Petroleum Engineer:	Matt Baker	Office: 435-781-4490	Cell: 435-828-4470
Petroleum Engineer:	Michael Lee	Office: 435-781-4432	Cell: 435-828-7875
Petroleum Engineer:	Jim Ashley	Office: 435-781-4470	Cell: 435-828-7874
Petroleum Engineer:	Ryan Angus	Office: 435-781-4430	
Supervisory Petroleum Technician:	Jamie Sparger	Office: 435-781-4502	Cell: 435-828-3913
Environmental Scientist:	Paul Buhler	Office: 435-781-4475	Cell: 435-828-4029
Environmental Scientist:	Karl Wright	Office: 435-781-4484	
Natural Resource Specialist:	Holly Villa	Office: 435-781-4404	
Natural Resource Specialist:	Melissa Hawk	Office: 435-781-4476	
Natural Resource Specialist:	Chuck Macdonald	Office: 435-781-4441	
Natural Resource Specialist:	Darren Williams	Office: 435-781-4447	
Natural Resource Specialist:	Verlyn Pindell	Office: 435-781-3402	
After Hours Contact Number: 435-781-4513		Fax: 435-781-4410	

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a one-year period. An additional year extension may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

- |   |  |
|---|--|
| Location Construction<br>(Notify Holly Villa)           | - Forty-Eight (48) hours prior to construction of location and access roads.   |
| Location Completion<br>(Notify Holly Villa)             | - Prior to moving on the drilling rig.   |
| Spud Notice<br>(Notify Petroleum Engineer)              | - Twenty-Four (24) hours prior to spudding the well.   |
| Casing String & Cementing<br>(Notify Jamie Sparger)     | - Twenty-Four (24) hours prior to running casing and cementing all casing strings.   |
| BOP & Related Equipment Tests<br>(Notify Jamie Sparger) | - Twenty-Four (24) hours prior to initiating pressure tests.   |
| First Production Notice<br>(Notify Petroleum Engineer)  | - Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days. |

**UDOGM**

***SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)***

1. A 30 foot corridor right-of-way shall be approved. Upon completion of each pipeline in corridor, they shall be identified and filed with the Ute Tribe.
2. A qualified Archaeologist accompanied by a Tribal Technician will monitor trenching construction of pipeline.
3. The Ute Tribe Energy & Minerals Department is to be notified, in writing 48 hours prior to construction of pipeline.
4. Construction Notice shall be given to the department on the Ute Tribe workdays, which are Monday through Thursday. The Company understands that they may be responsible for costs incurred by the Ute Tribe after hours.
5. The Company shall inform contractors to maintain construction of pipelines within the approved ROW's.
6. The Company shall assure the Ute Tribe that "ALL CONTRACTORS, INCLUDING SUB-CONTRACTORS, LEASING CONTRACTORS, AND ETC." have acquired a current and valid Ute Tribal Business License and have "Access Permits" prior to construction, and will have these permits in all vehicles at all times.
7. You are hereby notified that working under the "umbrella" of a company does not allow you to be in the field, and can be subject to those fines of the Ute Tribe Severance Tax Ordinance.
8. Any deviation of submitted APD's and ROW applications the Companies will notify the Ute Tribe and BIA in writing and will receive written authorization of any such change with appropriate authorization.
9. The Company will implement "Safety and Emergency Plan." The Company's safety director will ensure its compliance.
10. All Company employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APD's and/or ROW permits/authorizations on their person(s) during all phases of construction.
11. All vehicular traffic, personnel movement, construction/restoration operations shall be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.
12. All personnel shall refrain from collecting artifacts, any paleontological fossils, and from disturbing any significant cultural resources in the area.

13. The personnel from the Ute Tribe Energy & Minerals Department shall be notified should cultural remains from subsurface deposits be exposed or identified during construction. All construction will cease.
14. All mitigative stipulations contained in the Bureau of Indian Affairs Site Specific Environmental Assessment (EA) will be strictly adhered.
15. Upon completion of Application for Corridor Right-Way, the company will notify the Ute Tribe Energy & Minerals Department, so that a Tribal Technician can verify Affidavit of Completion.
16. Operator shall notify any active gilsonite mining operation within 2 miles of the location 48 hours prior to any blasting during construction for this well.

### ***DOWNHOLE CONDITIONS OF APPROVAL***

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

#### **SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL**

1. An approved Sundry Notice is required before adding any oil to the drilling mud.
2. A formation integrity test shall be performed at the intermediate casing shoe.
3. A Cement Bond Log (CBL) shall be run in the production casing from the TD to the top of cement. A field copy of the CBL shall be submitted to the BLM Vernal Field Office for review.

#### **DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

1. There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well. Any changes in operation must have prior approval from the BLM, Vernal Field Office Petroleum Engineers.
2. The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
3. **Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.**
4. Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

No aggressive/fresh hard-banded drill pipe shall be used within casing.

Cement baskets shall not be run on surface casing.

5. The lessee/operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled and analyzed (a copy of the analyses to be submitted to the BLM Field Office in Vernal, Utah).
6. All oil and gas shows shall be adequately tested for commercial possibilities, reported, and protected.
7. The lessee/operator must report encounters of all non oil and gas mineral resources (such as gilsonite, tar sands, oil shale, etc.) to the Vernal Field Office in writing within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
8. No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM, Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM, Vernal Field Office shall be obtained and notification given before resumption of operations.
9. Chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

Any change in the program shall be approved by the BLM, Vernal Field Office. "Sundry Notices and Reports on Wells" (Form BLM 3160-5) shall be filed for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Emergency approval may be obtained orally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan pursuant to Onshore Oil & Gas Order No. 1 of 43 CFR 3164.1 and prior approval by the BLM, Vernal Field Office.

In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

10. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys,

sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

**Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

11. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease shall have prior written approval from the BLM, Vernal Field Office.

All measurement points shall be identified as point of sales or allocation for royalty determination prior to the installation of facilities.

12. Oil and gas meters shall be calibrated in place prior to any deliveries. The Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM, Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement.
13. A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM, Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
14. This APD is approved subject to the requirement that, should the well be successfully completed for production, the BLM, Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - a. Operator name, address, and telephone number.
  - b. Well name and number.
  - c. Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - d. Date well was placed in a producing status (date of first production for which royalty will be paid).
  - e. The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).

- f. The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - g. Unit agreement and / or participating area name and number, if applicable.
  - h. Communitization agreement number, if applicable.
- 15. Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from Field Office Petroleum Engineers.
- 16. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production
- 17. Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- 18. Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0807
2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION CO.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TRIBE
3. ADDRESS OF OPERATOR: 11002 E. 17500 S. CITY VERNAL STATE UT ZIP 84078	7. UNIT or CA AGREEMENT NAME: WONSITS VALLEY UNIT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 48' FSL 1092' FEL	8. WELL NAME and NUMBER: WV 16CML-14-8-21
PHONE NUMBER: (435) 781-4301	9. API NUMBER: 4304738737
10. FIELD AND POOL, OR WILDCAT: UINTAH	

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESE 14 8S 21E

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>APD EXTENSION</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Questar Exploration & Production Co. hereby requests a 1 year extension on the WV 16CML-14-8-21.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 10-29-07  
By: [Signature]

NAME (PLEASE PRINT) <u>Laura Bills</u>	TITLE <u>Regulatory Affairs</u>
SIGNATURE <u>[Signature]</u>	DATE <u>10/25/2007</u>

(This space for State use only)

COPY SENT TO OPERATOR  
Date: 10-30-07  
Initials: RM

(5/2000)

(See Instructions on Reverse Side)

RECEIVED

OCT 29 2007

DIV. OF OIL, GAS & MINING

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 43-047-38737  
**Well Name:** WV 16CML-14-8-21  
**Location:** 48' FSL 1092' FEL, SESE, SEC. 14, T8S, R21E  
**Company Permit Issued to:** Questar Exploration & Production Co.  
**Date Original Permit Issued:** 10/30/2006

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes ☐ No ☒

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes ☐ No ☒

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes ☐ No ☒

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes ☐ No ☒

Has the approved source of water for drilling changed? Yes ☐ No ☒

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes ☐ No ☒

Is bonding still in place, which covers this proposed well? Yes ☒ No ☐

  
Signature

10/25/2007

Date

Title: REGULATORY AFFAIRS

Representing: Questar Exploration & Production Co.

**RECEIVED**

OCT 29 2007

DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

**Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-0807

6. If Indian, Allottee or Tribe Name

UTE INDIAN TRIBE

7. If Unit or CA/Agreement, Name and/or No.

WONSITS VALLEY UNIT

8. Well Name and No.

WV 16CML-14-8-21

9. API Well No.

43-047-38737

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

Uintah

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Questar Exploration & Production Company

3a. Address

11002 East 17500 South, Vernal, UT 84078

3b. Phone No. (include area code)

435-781-4331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

48' FSL 1092' FEL, SESE, SECTION 14, T8S, R21E

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**TYPE OF SUBMISSION**

**TYPE OF ACTION**

☒ Notice of Intent

☐ Acidize

☐ Deepen

☐ Production (Start/Resume)

☐ Water Shut-Off

☐ Subsequent Report

☐ Alter Casing

☐ Fracture Treat

☐ Reclamation

☐ Well Integrity

☐ Final Abandonment Notice

☐ Casing Repair

☐ New Construction

☐ Recomplete

☒ Other

☐ Change Plans

☐ Plug and Abandon

☐ Temporarily Abandon

APD EXTENSION

☐ Convert to Injection

☐ Plug Back

☐ Water Disposal

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Questar Exploration & Production Co. hereby requests a 1 year extension on the APD for the WV 16CML-14-8-21.

BLM APD approval date: 02/23/2007.

RECEIVED

FEB 28 2008

DIV. OF OIL, GAS & MINING

CONDITIONS OF APPROVAL ATTACHED

RECEIVED  
VERNAL FIELD OFFICE  
2008 JAN 31 PM 12:47  
BUREAU OF LAND MGMT.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Laura Bills

Title

Regulatory Affairs

Signature

*Laura Bills*

Date

January 30, 2008

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by

*Mark Baker*

Title

Petroleum Engineer

Date

FEB 12 2008

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

UDOGM

CONFIDENTIAL

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 43-047-38737  
**Well Name:** WV 16CML-14-8-21  
**Location:** 48' FSL 1092' FEL, SESE, SEC. 14, T8S, R21E  
**Company Permit Issued to:** Questar Exploration & Production Co.  
**Date Original Permit Issued:** 2/23/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes ☐ No ☒

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes ☐ No ☒

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes ☐ No ☒

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes ☐ No ☒

Has the approved source of water for drilling changed? Yes ☐ No ☒

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes ☐ No ☒

Is bonding still in place, which covers this proposed well? Yes ☒ No ☐

*Anna Bills*  
Signature

1/30/2008

Date

Title: Regulatory Affairs

Representing: Questar Exploration & Production Co.

RECEIVED  
FEB 28 2008  
DIV. OF OIL, GAS & MINING

# **CONDITIONS OF APPROVAL**

## **Questar Exploration & Production Co.**

### **Notice of Intent APD Extension**

**Lease:** UTU-0807  
**Well:** WV 16CML-14-8-21  
**Location:** SESE Sec 14-T8S-R21E

An extension for the referenced APD is granted with the following conditions:

---

1. The extension and APD shall expire on 2/23/09
2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Matt Baker of this office at (435) 781-4490

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

5. Lease Serial No.

UTU-0807

6. If Indian, Allottee or Tribe Name

UTE INDIAN TRIBE

7. If Unit or CA/Agreement, Name and/or No.

WONSITS VALLEY UNIT

8. Well Name and No.

WV 16CML-14-8-21

9. API Well No.

43-047-38737

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

UINTAH

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION & PRODUCTION, CO.

Contact: Jan Nelson

3a. Address

11002 E. 17500 S. VERNAL, UT 84078

3b. Phone No. (include area code)

435-781-4331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

48' FSL 1092' FEL, SESE, SECTION 14, T8S, R21E

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**TYPE OF SUBMISSION**

**TYPE OF ACTION**

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☒ Change Plans

☐ Convert to Injection

☒ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other NAME CHANGE

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

QUESTAR EXPLORATION AND PRODUCTION COMPANY (QEP) REQUEST PERMISSION TO CHANGE THE DRILLING PLANS, INCREASE TOTAL DEPTH FROM 11,325' TO 16,730' FOR THIS WELL AND TO USE OIL BASE MUD FOR THE DRILLING OF THE FINAL SECTION OF THIS WELL TO IMPROVE DRILLING EFFICIENCY, WELLBORE STABILITY AND TO PROMOTE A GOOD CEMENT JOB OF THE PRODUCTION CASING. ATTACHED IS A DRILLING PLAN, WELLBORE DIAGRAM, DRILLING FLUID PROPOSAL AND A PROPOSAL FOR PROCESSING AND DISPOSAL OF THE OIL BASE MUD.

QEP IS REQUESTING TO CHANGE THE WELL NAME FROM WV WV 16CML-14-8-21 TO WV 16C-14-8-21.

QUESTAR EXPLORATION & PRODUCTION COMPANY (QEP) WILL PROVIDE THE PROPER PAPER WORK TO THE BUREAU OF INDIAN AFFAIRS AND UTE TRIBE.

FOR TECHNICAL QUESTIONS, PLEASE CONTACT JOHN W. OWEN, DRILLING CONSULTANT FOR QEP, AT (303) 308-3054.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Jan Nelson

Signature

Title

Regulatory Affairs

Date

July 3, 2008

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by

BRADLEY G. HILL  
ENVIRONMENTAL MANAGER

Date

07-07-08

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**COPY SENT TO OPERATOR**

**RECEIVED**

Date: 7-9-2008 Federal Approval of this  
Action Is Necessary

Initials: KS

JUL 07 2008

DIV. OF OIL, GAS & MINING

**CONFIDENTIAL**

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1

Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. **Formation Tops**

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>
Uinta	Surface
Green River	2,675'
Wasatch	5,965'
Mesaverde	8,930'
Sego	11,405'
Castlegate	11,465'
Blackhawk	11,835'
Mancos Shale	12,325'
Mancos B	12,740'
Frontier	15,435'
Dakota Silt	16,335'
Dakota	16,530'
TD	16,730'

2. **Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones**

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Gas	Wasatch	5,965'
Gas	Mesaverde	8,930'
Gas	Blackhawk	11,835'
Gas	Mancos Shale	12,325'
Gas	Mancos B	12,740'
Gas	Dakota	16,530'

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

DRILLING PROGRAM

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right # A36125 (which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal Site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

3. **Operator's Specification for Pressure Control Equipment:**

- A. 13-5/8" 5000 psi double gate, 5,000 psi annular BOP (schematic included) from surface hole to 9-5/8" casing point. A 13-5/8" 10,000 psi double and single gate may be substituted based on contractor availability and substructure height of the drilling rig.
- B. 11" or 13-5/8" 10,000 psi double gate, 10,000 psi single gate, 10,000 psi annular BOP (schematic included) from 9-5/8" casing point to total depth. The choice of BOP stacks is based on the drilling contractor's availability.
- C. Functional test daily
- D. All casing strings shall be pressure tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- E. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 10M system and individual components shall be operable as designed.

## DRILLING PROGRAM

### 4. Casing Designs

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Mud Weight	Wt. lb/ft	Grade	Thread	Cond.
26"	20"	sfc	40-60'	N/A	Steel	Cond.	None	Used
17-1/2"	13-3/8"	sfc	500'	N/A	54.5	K-55	STC	New
12-1/4"	9-5/8"	sfc	5,260'	9.2	47	HCP-110	Flush Jnt **	New
8-1/2"	7"	Surface	9,000'		26	HCP-110	LTC	New
8-1/2"	7"	9000'	12,375'	13.5	29 SDrift *	HCP-110	LTC	New
6-1/8"	4-1/2"	sfc	13,000'		15.1	P-110	LTC	New
6-1/8"	4-1/2"	13,000'	15,000'		15.1	Q-125	LTC	New
6-1/8"	4-1/2"	15,000'	16,730'	15.1	16.6	Q-125	LTC	New

Casing Strengths:				Collapse	Burst	Tensile (minimum)
13-3/8"	54.5 lb.	K-55	STC	1,130 psi	2,730 psi	547,000 lb.
9-5/8"	47 lb.	HCP-110	LTC	7,100 psi	9,440 psi	1,213,000 lb.
7"	26 lb.	HCP-110	LTC	7,800 psi	9,950 psi	693,000 lb.
7"	29 lb.*	HCP-110	LTC	9,200 psi	11,220 psi	797,000 lb.
4-1/2"	15.1 lb.	P-110	LTC	14,350 psi	14,420 psi	406,000 lb.
4-1/2"	15.1 lb.	Q-125	LTC	15,840 psi	16,380 psi	438,000 lb.
4-1/2"	16.6 lb.	Q-125	LTC	19,010 psi	18,130 psi	493,000 lb.

\* Special Drift

\*\* Flush Jnt – VAM SLIJ II or LT&C based on availability

#### MINIMUM DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.10

TENSION: 1.80

DRILLING PROGRAM

Area Fracture Gradient: 0.9 psi/foot  
Maximum anticipated mud weight: 15.1 ppg  
Maximum surface treating pressure: 12,500 psi

**5. Cementing Program**

**20" Conductor:**

Cement to surface with construction cement.

**13-3/8" Surface Casing: sfc – 500' (MD)**

See attached cementing program from Halliburton.

**9-5/8" Intermediate Casing: sfc – 5,260' (MD)**

See attached cementing program from Halliburton.

**7" Intermediate Casing: sfc - 12,375' (MD)**

See attached cementing program from Halliburton.

**4-1/2" Production Casing: sfc - 16,730' (MD)**

See attached cementing program from Halliburton.

\*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface on the intermediate strings and 6,000'+/- on the production string. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

**6. Auxiliary Equipment**

- A. Kelly Cock – yes
- B. Float at the bit – yes
- C. Monitoring equipment on the mud system – visually and/or PVT/Flow Show
- D. Full opening safety valve on the rig floor – yes
- E. Rotating Head – yes  
If drilling with air the following will be used:
- F. Request for Variance

## DRILLING PROGRAM

Drilling surface hole with air:

A variance from 43 CFR 3160 Onshore Oil and Gas Order #2, Section III Requirements, subsection E. Special Drilling Operations is requested for the specific operation of drilling and setting surface casing on the subject well with a truck mounted air rig. The variance from the following requirements of Order #2 is requested because surface casing depth for this well is 500 feet and high pressures are not expected.

1. **Properly lubricated and maintained rotating head** – A diverter system in place of a rotating head. The diverter system forces the air and cutting returns to the reserve pit and is used to drill the surface casing.
  2. **Blooiie line discharge 100 feet from wellbore and securely anchored** – the blooiie line discharge for this operation will be located 50 to 70 feet from the wellhead. This reduced length is necessary due to the smaller location size to minimize surface disturbance.
  3. **Automatic igniter or continuous pilot light on blooiie line** – a diffuser will be used rather than an automatic pilot/igniter. Water is injected into the compressed air and eliminates the need for a pilot light and the need for dust suppression equipment.
  4. **Compressors located in the opposite direction from the blooiie line a minimum of 100 feet from the wellbore** – compressors located within 50 feet on the opposite side of the wellbore from the blooiie line and is equipped with a 1) emergency kill switch on the driller's console, 2) pressure relief valves on the compressors, 3) spark arrestors on the motors.
- G. All other operations and equipment for air/gas drilling shall meet specifications in Onshore Order #2, Section III Requirements, subsection E. Special Drilling Operations and Onshore Order #1.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Intermediate holes will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. The production hole will be drilled with oil base mud (OBM). No chromates will be used. Maximum anticipated mud weight is 15.1 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

DRILLING PROGRAM

7. **Testing, logging and coring program**

- A. Cores – none anticipated
- B. DST – none anticipated
- C. Logging – Mud logging – 500' to TD  
GR-SP-Induction, Neutron Density
- D. Formation and Completion Interval: Mancos interval, final determination of completion will be made by analysis of logs.  
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

8. **Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards**

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 12,800 psi. Maximum anticipated bottom hole temperature is 310° F.

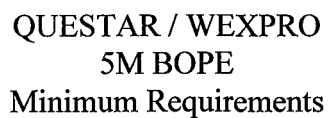
9. **Additional Information For Oil Base Mud**

- A. See attached diagram of well pad layout. A reserve pit will be constructed for this location. This pit will be constructed so that a minimum of two vertical feet of freeboard exists above the top of the pit at all times and at least one-half of the holding capacity will be below ground level. The pit will be lined with a synthetic reinforced liner, 30 millimeters thick, with sufficient bedding used to cover any rocks prior to putting any fluids into the pit. The pad will be designed so that runoff from adjacent slopes does not flow into the reserve pit. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. At the beginning of drilling operations this reserve pit will have an open-ended dike placed in the pit that allows the fluids to migrate from one side of the pit to the other during the drilling of the surface and intermediate hole using water based mud. At the time that operations begin to drill the production hole with oil base mud, this dike will be extended, dividing the pit into two distinct, isolated halves allowing no migration of fluids from one side to the other. At that time all fluids will be removed from the end of the pit to be used as a cuttings pit. This cuttings pit will be used for oil based cuttings generated during drilling of the production hole.

## DRILLING PROGRAM

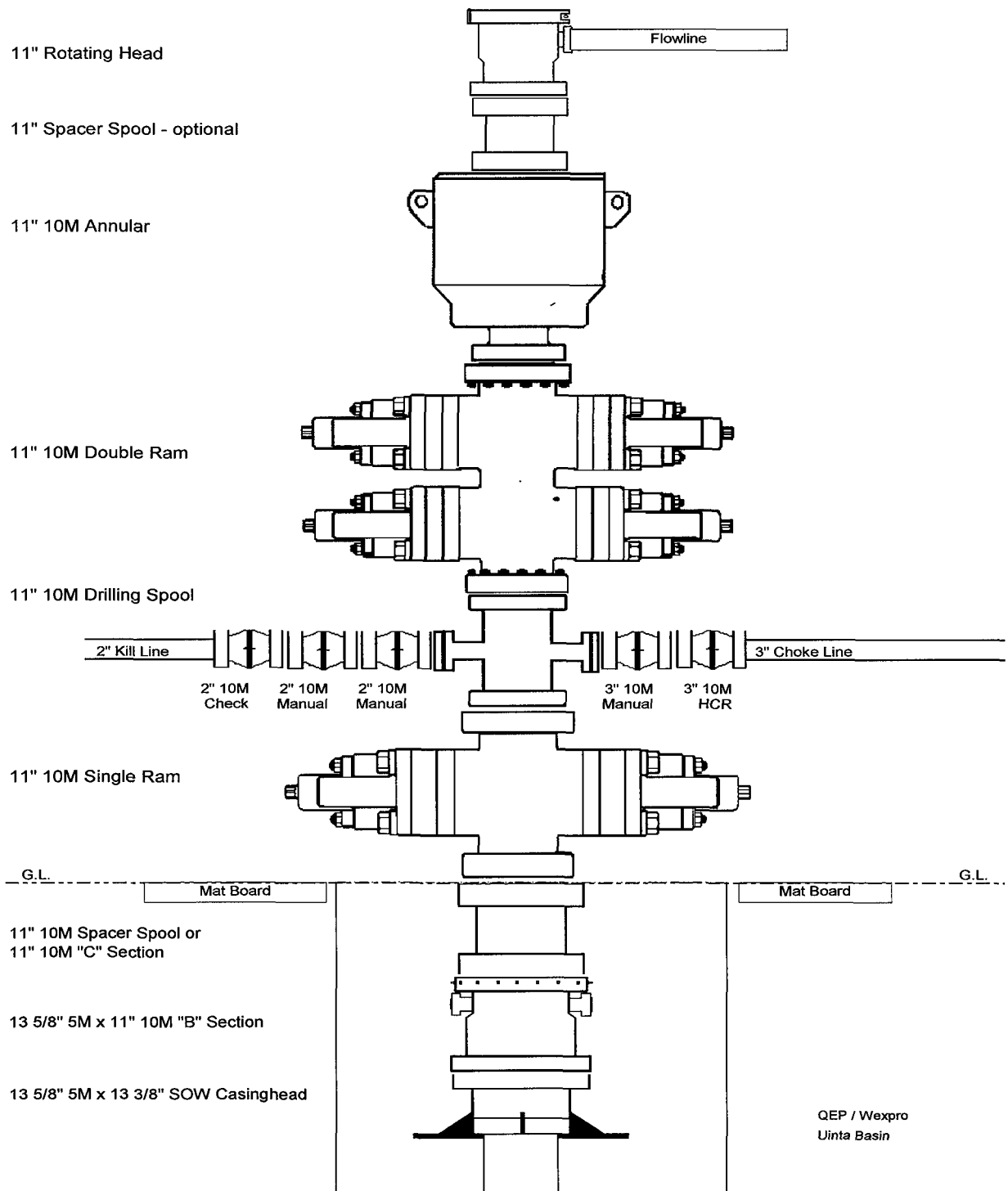
- B.** Oil-base mud will be mixed in the closed circulating system and transferred to four 500-bbl tanks on location for storage prior to and after drilling operations. Drip pans will be installed below the rotary beams on the substructure and can be viewed on site from the cellar area. As the production section of the hole is drilled, the cuttings transported to the surface with the drilling fluid will be mechanically separated from the drilling fluid as waste by two shale-shakers and then cleaned/dried via a mud cleaner and/or centrifuge. These separated cuttings will be transferred to the cuttings pit nearest the shakers and stored in this cuttings pit for solidification after the rig is released and moved off location.
- C.** The means to transport the cuttings from the solids control equipment to the OBM cuttings pit will be by 10" PVC pipe or equivalent steel piping. Water will be pumped to the solids control equipment and will convey the OBM cuttings from the solids control equipment to the OBM cuttings pit via the PVC pipe. The water will be recycled multiple times from the cuttings pit to continue to transport the cuttings to the cuttings pit. The conveyance system will be enclosed on the solids control end to prevent spills. The conveyance piping system at the cuttings pit end will be placed on top of a pit liner to eliminate absorption of fluids into the soil.
- D.** Plastic material will underlay the rig, oil base mud/diesel storage tanks and mud pits. All tanks on location will be placed inside of berms. Any oily waste fluids and sediments generated at the work site during drilling operations or when cleaning the fluid containment system after drilling will also be placed into the cuttings half of the pit.
- E.** All rig ditches will be lined and directed to a lined sump for fluid recovery. A drip pan will be installed on the BOP stack, a mud bucket will be utilized as needed on connections and a vacuum system will be used on the rig floor for fluid recovery in those areas.
- F.** Once all waste has been placed in the cuttings portion of the pit and all necessary approvals obtained, the oilfield waste management consultant Soli-Bond or a similar company will mobilize equipment and personnel to the site to perform the cement based solidification/stabilization process in-situ for encapsulation. Soil will be backfilled over the processed material used on the cuttings side of the pit and that portion of the pit area will be returned to the existing grade bordering the pit. Please see the attached Soli-Bond Proposal for Processing and Disposal of Drilling Waste for specific details. The half of the reserve pit containing water base materials will be left to evaporate and will be closed and reclaimed at the time that portion of the pit is dry.

## DRILLING PROGRAM



QEP / Wexpro

# DRILLING PROGRAM

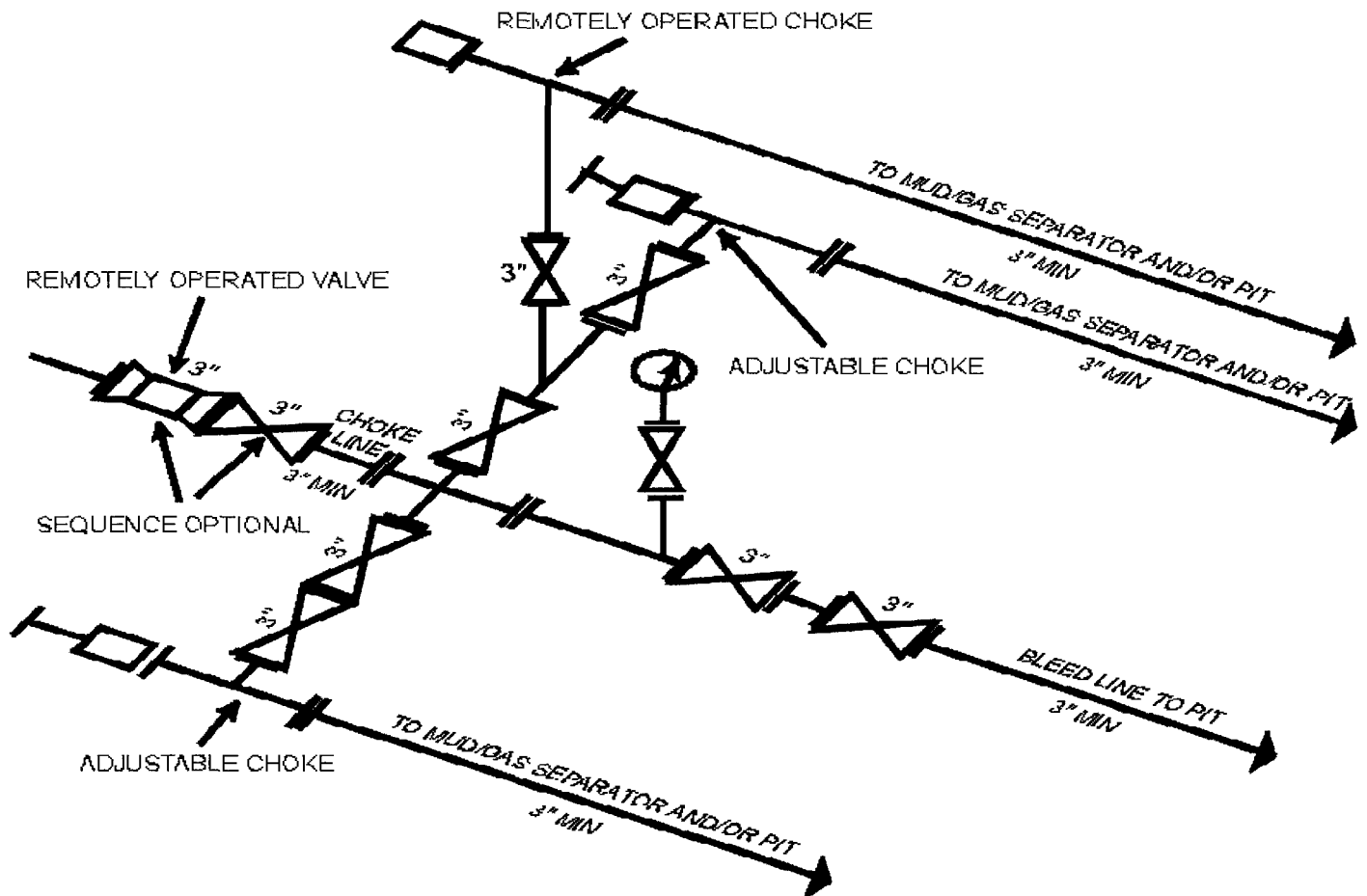


QUESTAR / WEXPRO  
 10M BOP x 10M Annular for Deep Uinta Basin

## DRILLING PROGRAM

### Minimum Requirements

Attachment I. Diagrams of Choke Manifold Equipment



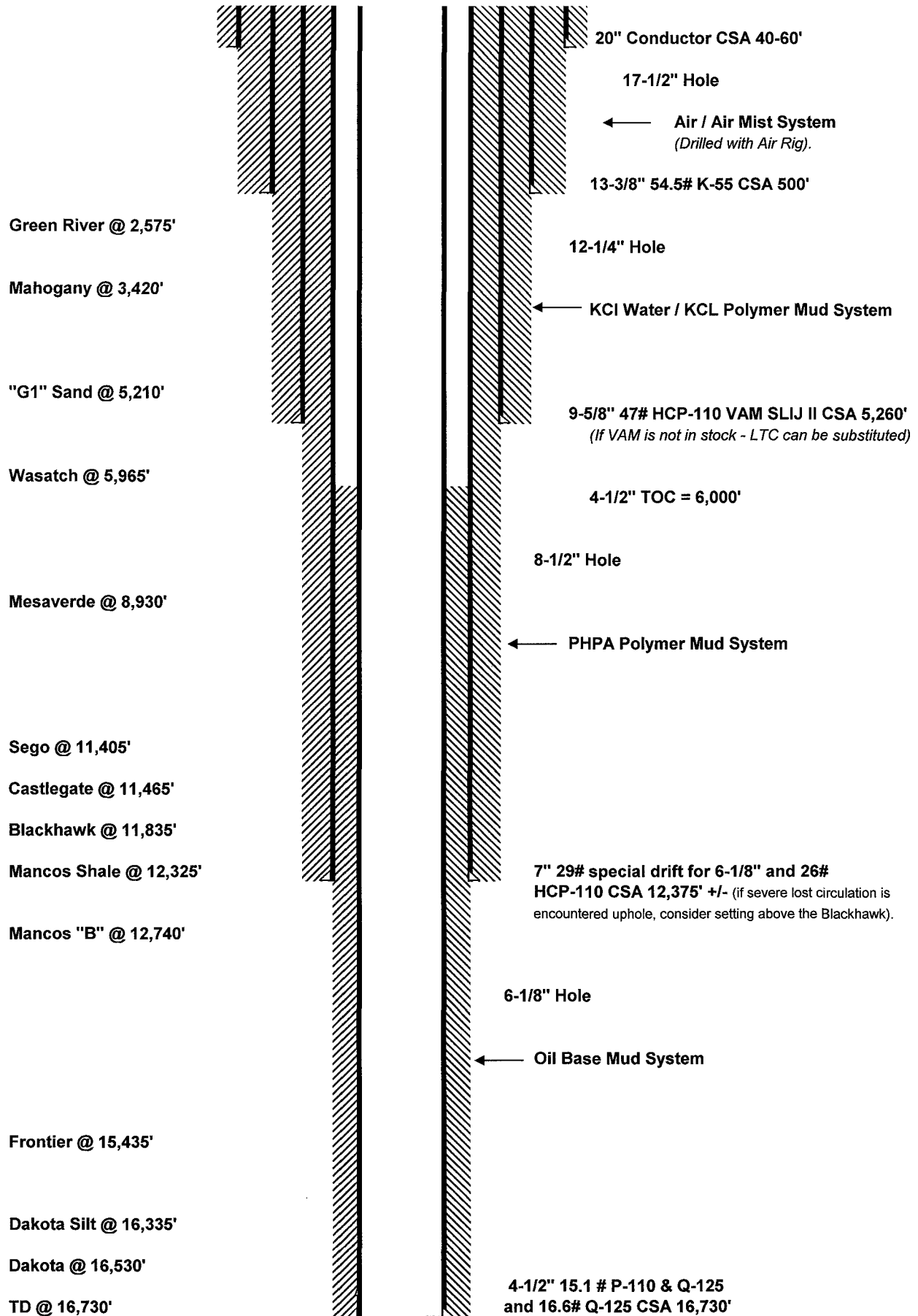
I-4 10M and 15M Choke Manifold Equipment -- Configuration of chokes may vary

[54 FR 39528, Sept. 27, 1989]

*Last Updated March 25, 1997 by John Broderick*

QUESTAR / WEXPRO  
TYPICAL 10M CHOKE MANIFOLD

# WV 16C-14-8-21





**Questar  
Exploration &  
Production Company**

***WV 16C-14-8-21***

***Sec 14-T8S-R21E  
Uintah County, Utah***

***Drilling Fluids Program***

***410 17<sup>th</sup> Street, Suite 460 Denver, CO 80202  
(303) 623-2205 (720) 904-7970 Fax***



## Newpark Drilling Fluids, LP

410 17<sup>th</sup> Street, Suite 460

■ Denver, Colorado 80202

■ (303) 623-2205

■ FAX (720) 904-7970

July 1, 2008

Mr. John Owen  
Questar Exploration & Production  
1331 17th Street, Suite 800  
Denver, Colorado 80202

RE: WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah Co, Utah

Mr. Owen:

Newpark Drilling Fluids, LP is pleased to present the enclosed revised recommended drilling fluids program for the WV 16C-14-8-21 well to be drilled in Uintah County, Utah. This program is for drilling with KCL Water/FlexFirm and/or light mud in the 1st intermediate to 5,260 ft, a polymer fluid system in the 2nd intermediate interval to 12,375 ft, then to T.D. at 16,730 ft with OBM.

The Surface Interval will be pre-set at a depth of 500 ft.

For the 1st intermediate Interval, a light KCL /Flex Firm drilling fluid is planned. Lightly mud up before drilling into the Trona/Water flood area and/or before Intermediate T.D.

Brine kill pills may be needed for trips, logs, and casing operations, depending on pressure encountered while drilling. Trona water flows in this area may require a mud weight of 9.5-9.8 ppg to control. Water flood area's in the Green River may need 10.2-10.5 ppg mud weight to control. A mud-up will be recommended before 1st Intermediate T.D. at 4,352'. Mud-up to a NewPHPA/Polymer system. Required mud weight at interval T.D. at 5,260' is expected to be in the 8.8-9.0 ppg range.

In the 2nd intermediate interval, drill out with the KCL water from the previous interval.. Mud weight in this interval is expected to be in the 10.5-11.0 ppg range at the 12,375 ft liner interval T.D. Extreme losses have been encountered in this interval on offset wells.

In the Production interval, displace to a 13.0-14.0 ppg OptiDrill OBM system. Maintain fluid density as low as possible to increase penetration rates and reduce the possibility of lost circulation. Use high weight pills for well control during; trips, logs, and casing operations. Mud weight at T.D. is expected to be at +/-15.5 ppg.

The projected drilling time for this project is 45-50 days with an estimated material and engineering cost of \$200,000.00 assuming no unusual delays or problems are encountered. The estimate is based on minimal losses and a 15.0 ppg mud weight at TD. Costs will increase dramatically if severe losses are encountered.

All sack material and bulk barite will be furnished from our Grand Junction, Colorado and Myton, UT facilities with OBM supplied from Newpark's Boulder, WY facility.

If you have any questions following your review of this proposal, please call.

Regards,

Estes Ward  
Operations Manager  
Newpark Drilling Fluids, LP

# Project Summary

**Questar**  
**Exploration & Production**  
**WV 16C-14-8-21**  
**Sec 14-T8S-R21E**  
**Uintah, County Utah**

Depth (ft)	Formations	Interval Comments	Mud Weight (ppg)	Mud Properties
500'	Uinta Surface T.D.	Hole size: 17 1/2" / Casing: 13 3/8"  AIR DRILLED	NA	NA
2,675'	Green River  Mahogeny Mahogeny Base	<b>KCL/FlexFirm</b> Hole size: 12-1/4" / Casing: 9 5/8"  Drill out with KCL water. Maintain K silicate with 1-3 sks per 100 ft. Pump pre-hydrated NewGel or Flowzan /New Gel sweeps for increased hole cleaning and for any tight hole and/or torque. For trips, spot heavy brine if needed for trona flow, and at intermediate T.D. check hole conditions and spot high viscosity mud if needed. If hole conditions dictate a mud-up, convert the system to a KCL/Polymer system.  Mud weight required at T.D. is expected to be in the 8.8-9.0 ppg range	8.4-8.8	Vis (sec/qt): 27-36  PV (cp): 0-8  YP (#s/100ft <sup>2</sup> ): 0-10  FL (ml/30 min): NC-20  LGS %: < 1%-3 %  pH: 10.5-10.8  Cl (mg/l): 15-20K
5,260'	Intermediate T.D.		8.8-9.0	KCL: 3%
5,965'	Wasatch	<b>NewPHPA/Polymer</b> Hole size: 8.5" / Liner: 7"	9.1-9.4	Vis (sec/qt): 40-45
8,930'	Mesa Verde	Mud up as hole conditions dictate to a NewPHPA/ Polymer system. Maintain properties as outlined in-creasing the PHPA concentration to 1 ppb.	9.2-9.5	PV (cp) : 12-20
11,405'	Sego Bucktongue	Lost circulation may be a problem in this interval. If lost circulation is encountered, pump LCM pills as needed. If LCM pills will not control losses, by-pass the shakers and increase the LCM concentration in the system as needed.	10.0-10.5	YP (#s/100ft <sup>2</sup> ) : 10-12  FL (ml/30 min): 6-8
11,465'	Castlegate	If severe lost circulation is encountered, consider a DynaPlug squeeze.		LGS %: 3-5
11,835'	Blackhawk	Hole instability may be encountered in the Mesa Verde.	10.5	pH: 10.0-10.5
12,325'	Mancos	Monitor torque, pump pressure, connection fill, and trip conditions for indications of hole instability and consider adding Asphalt if hole conditions dictate.	10.5-11.0	Cl (mg/l): 11-15K
12,375' +/-	Inter. 2 T.D.			PHPA: 1.0 ppb
12,740'	Mancos B	<b>OptiDrill OBM</b> Hole size: 6-1/8" / Casing: 4-1/2"	14.0	PV (cp): 15-25
		Drill out with the OptiDrill system, treating cement contamination as needed with OptiWet to prevent shaker blinding.		YP (lbs/100ft <sup>2</sup> ): 8-10
15,435'	Frontier equiv.	Maintain hole cleaning during high ROP's with high viscosity sweeps. Use a 1:1 ratio of OptiVis RM and OptiVis.	14.6	HPHT (mls/30 min.): <20
16,335'	Dakota Silt	CO2 in the gas stream while drilling under balanced will require additional Lime, emulsifiers and wetting agent.	15.0	O/W : 80:20 - 85:15
16,530'	Dakota			ES: 500+
16,730'	Total Depth	Maintain mud weight as needed for well control. Spot high weight ECD pills for trips, logs, and casing operations.	15.5	Lime: 2-4 ppb  LGS %: < 6



**Newpark Drilling Fluids, LP**

410 17th Street, Suite 460  
 Denver, CO. 80202  
 (303) 623-2205 FAX (720) 904-7970

# Project Summary

Questar  
Exploration & Production  
WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah, County Utah

## DRILLING FLUID PROPERTIES

### Surface Hole: Air Drilled

Hole Size (in)	TVD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	API Fluid Loss (ml/30min)	Total Solids (%)
17-1/2 "	0-500'	NA	NA	NA	NA	NA

### 1st Intermediate Hole: KCL/FlexFirm

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	API Fluid Loss (ml/30min)	Chloride Mg/l (x1000)	LGS Solids (%)
12-1/4"	500'- 4,100'	8.6-8.8	2-8	0-4	NC-20	15-20	1-3%
12-1/4"	4,100'-5,260'	9.3-9.5	8-12	8-10	10-12	15-20	3-5%

### 2nd Intermediate Interval: NewPHPA/Polymer

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	API Fluid Loss (ml/30min)	pH	LGS Solids (%)
8-1/2"	5,255' -10,000'	9.3-9.8	6-12	6-10	8-10	10.0-11.0	3-6%
8-1/2 "	10,000'-12,375'	10.5-11.0	12-18	12-15	6-8	10.0-11.0	3-6%

### Production Interval: OptiDrill OBM

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	O/W Ratio (%)	HPHT Fluid Loss (ml/30min)	CaCL (mg/l) X 10,000	Electrical Stability (mv)	LGS Solids (%)
6-1/8 "	12,375'-16,730'	15.0-15.5	20-30	8-10	85/15	12-15	250-350	500 +	3-6

- Drilling fluid properties are guidelines only.
- Mud weights for guidelines only, allow hole conditions to dictate actual mud weights.
- Hole conditions should be closely monitored and product mix adjusted accordingly.



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# 1st Intermediate Interval

## 12-1/4" Hole (500' - 5,260')

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Exploration & Production  
WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah, County Utah

### 1st Intermediate Interval Drilling Fluid Properties

Depth Interval (TVD)	Mud Weight (ppg)	Viscosity (sec/qt)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	pH	API Fluid Loss (ml/30min)	KCL (%)	Low Gravity Solids	Chlorides Mg/l (x1000)
500' - 5,260' +/-	9.0-9.5	28-36	2-10	0-8	10.0-11.0	NC-20	3.0	<1.0	15-20

- Drill out with KCL water maintaining KCL % at 3.0.
- Mix FlexFirm at 3 sks per 100 ft drilled for hole stability and reduced bit balling.
- If a water flow is encountered, treat as needed for carbonates.
- Pump pre-hydrated NewGel and/or Flowzan/SaltGel sweeps for increased hole cleaning, along with LCM sweeps for seepage (Paper LCM while drilling with water)
- If water flows are encountered, spot heavy brine pills for trips, logs and casing operations.
- If hole conditions dictate a mud-up, convert the KCL water to a KCL/Polymer system.
- **Shallow gas/overpressure was encountered on some offsets in the area at 3,700-4,000'. A 9.5-9.9 ppg fluid was needed to control pressure.**

Challenges:	Strategies:
Gravel/Unconsolidated formation	If encountered, pump sweeps of pre-hydrated NewGel with a viscosity of 150 -300 sec/qt.
Water Flows (Trona)	If water flows become excessive, control hydrostatic as needed with air additions and fluid density.
Lost Circulation	While drilling with water, pump LCM sweeps consisting of paper. If drilling with mud, pump mixed LCM pills in the 20-30% LCM range.
Hole Cleaning	Pump sweeps on a regular basis and for any indications of insufficient hole cleaning. Circulate and pump sweeps before connections and for any anticipated down time.
Increase ROP with PDC Bits	Pump 20-40 bbl. Sweeps with NewEase 203, New100N, DynaDet, and SAPP. (FlexDrill Sweeps)
Hole Instability/Sloughing Shale	Consider a mud-up and Asphalt additions.



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# 1st Intermediate Interval

## 12-1/4" Hole (500 - 5,260')

Questar  
Exploration & Production  
WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah, County Utah

### Offset Data:

- Wells in this area have encountered major losses at +/- 3600 ft.
- Gravel/unconsolidated formation has been encountered at 1380 ft.
- Gas/overpressure has been encountered at 3,700'-4,000'.

### Fluid Recommendations:

- Drill out cement, float collar and new formation. Test the integrity of the casing seat and squeeze if necessary.
- Drill out with Saltwater, aerating as needed to maintain circulation.
- If water is encountered, control flow with reduced air and fluid density.
- If a Trona Water flow is encountered additions of **Lime** and/or **Calcium Chloride** should be used to adjust alkalinities as needed.
- The use of a premix tank is highly recommended. Pre-Hydrate **NewGel** for use as sweeps and for viscosity when a mud up is needed. Fill premix tank with fresh water. Treat out hardness with **SodaAsh** as needed. Add 0.25-0.5 ppb **Caustic Soda** for a 10.0-10.5 pH. Begin additions of 20-25 ppb **NewGel** allow sufficient circulating time for maximum hydration. Add 1.0-2.0 ppb **CFL II**. Then mix additional **NewGel** (30-40 ppb total) or a 120+ funnel viscosity. The pre-hydrated bentonite can be pumped from the premix to the pill tank and pumped downhole for sweeps or can be added slowly to the **Saltwater** for viscosity and rheology control.
- If penetration rates slow sweeps with **New 100N**, **NewEase 203**, **SAPP**, and **DynaDet** should be considered. (1% **New 100N**, 1% **NewEase 203**, 0.5-0.75 ppb **SAPP**, 0.2 % **DynaDet**). "**Flex Sweeps**"
- For trips, an increase in mud weight may be necessary to kill water flows. 9.8-10.0 ppg brine should be considered for this operation.
- Seepage and/or lost circulation may become a problem. For seepage while drilling with water, pump 20-30 bbl pills containing Paper LCM.
- If losses become severe, consider a mud up and LCM sweeps of **Cedar Fiber** and **FiberSeal** should be pumped and incorporated into the system as needed. If losses continue, increase coarse LCM in active system to 15-20%. If losses continue the use of a **New X-Prima** Squeeze is strongly recommended.
- At TD increase funnel viscosity for logs and casing operations as hole conditions dictate. Suggest funnel viscosity be increased to 45-50 sec/qt, before logging operations be attempted.
- At 5,260' ( intermediate T.D.) short trip, check hole conditions. If hole conditions dictate, add pre-hydrated **NewGel** from the premix tank to the active system to increase funnel viscosity to 45-50 sec/qt and spot in the open hole for logs and casing operations

**DRILL STRING PACK-OFF:** Rapid penetration rate during fast drilling often deteriorates to pack-off, a situation which can lead to lost circulation and/or stuck pipe. Pack-off is typically self-induced by exceeding the maximum rate of penetration for a given annular flow rate. The solution to this is to control the penetration rate to a level that the pumps can adequately clean the hole while maintaining rheological properties in line with existing hydraulic parameters.

**SOLIDS CONTROL:** It is of the utmost importance that the shale shakers and flow line cleaners be equipped with the finest screens possible, and yet handle the flow rate. The desander and desilter units should be evaluated periodically and serviced to maximize performance.



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## 2nd Intermediate Interval

8-1/2" Hole (5,260' - 12,375')

Questar  
Exploration & Production  
WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah, County Utah

2nd Intermediate Interval Drilling Fluid Properties								
Depth Interval (TVD)	Mud Weight (ppg)	Viscosity (sec/qt)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	pH	API Fluid Loss (ml/30min)	Hardness Mg/l)	Low Gravity Solids
5,260'-10,000'	9.0-9.5	32-36	6-12	6-10	10.0-11.0	8-10	100+	4-6
10,000'-12,375'	10.5-11.0	45-50	10-18	12-14	10.0-11.0	6-8	100+	4-6

- Drill out with water and or mud as hole conditions dictate. After mud-up , allow the system to revert to a fresh water polymer system.
- As mud weight is increased, seepage losses can become severe. Treat with LCM pills as needed. If pill treatments will not contain the losses at reasonable levels, by-pass the shakers, retaining the pills and allowing the LCM concentration to increase as needed.
- Hole instability can occur in the Mesa Verde in this area. If encountered, consider adding Asphalt, building to a 4-6 ppb concentration.
- High pressure may be encountered in the Castlegate/Blackhawk. Monitor closely for increased pressure while drilling and use caution on trips to minimize possible swabbing.
- Mud weight at Intermediate #2 T.D. is expected to be in the 10.5-11.0 ppg range.
- The use of ECD pills for trips to maintain a low mud weight for drilling has been used successfully on offset wells.
- Spotting a LCM pill on bottom during trips has decreased losses in the area.

Challenges:	Strategies:
Hole Instability/Sloughing Shale	Consider 4-6 ppb Asphalt
Increase in Formation pressure	Monitor well conditions and increase density as needed with <b>NewBar</b> as needed.
Seepage/Lost Circulation	As mud weight is increased (10.0ppg +) seepage and losses may become a problem. For seepage pump 50 bbl sweeps with 5-10 ppb <b>DynaFiber</b> and 10-20 ppb <b>NewCarb</b> as needed. For partial or total losses pump sweeps with 10-15 ppb <b>FiberSeal</b> and <b>Cedar Fiber</b> . Severity of losses will determine size and quantity of LCM added. If losses are not controlled with sweeps consider 10-15% LCM in active system. For severe losses the use of a <b>New X-Prima</b> squeeze should be considered.
Differential Sticking	Maintain mud weight as low as possible. Control Low Gravity Solids below 6%, and control fluid loss at 8-10 mls/30 min.
Increase ROP with PDC Bits	Pump 20-40 bbl. Sweeps with NewEase 203, New100N, DynaDet, and SAPP. (FlexDrill Sweeps)



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## 2nd Intermediate Interval

8-1/2" Hole (5,260'-12,375')

Questar  
Exploration & Production  
WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah, County Utah

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### Offset Data:

Wells in this area have experienced losses as mud weights are increased to control formation pressure. LCM sweeps are strongly recommended for this reason. Mud weights should be kept as low as practical but increases to 11.2 ppg may be required by 2nd Intermediate TD at 12,375'.

- Loss zones on offset wells were at 9200 ft and 9500 ft.
- Losses were encountered at 10,200' on the WV 11AD-14-8-21

### Fluid Recommendations:

- Drill out cement, float collar and new formation with the system from the previous interval. Test the integrity of the casing seat and squeeze if necessary.
- Drill out with water and or mud. If drilling out with water consider a mud up by +/- 7500 ft or as hole conditions dictate.
- Begin additions of 0.5-1.0 ppb **NewPHPA** and maintain throughout the interval.
- Maintain viscosity with PreHydrated **NewGel** until chlorides have dropped below 5000-7000 mg/l. After chlorides have dropped **NewGel** will not need to be pre-hydrated and can be added directly to the system.
- Begin additions of **NewPHPA**. Concentration of **NewPHPA** should be maintained at 0.5-1.0 ppb throughout the interval. As mud weight increases additions of **PHPA** should be switched from **NewPHPA DLMW** to the shorter chain **NewPHPA DSL**.
- If hole conditions dictate, consider 4-6 ppb Asphalt.
- If penetration rates slow sweeps with **New 100N**, **NewEase 203**, **SAPP**, and **DynaDet** should be considered. (1% **New 100N**, 1% **NewEase 203**, 0.5-0.75 ppb **SAPP**, 0.2 % **DynaDet**). "**Flex Sweeps**"
- Increase mud weight as needed to control formation pressures as needed. Mud weights should be maintained as low as practical to reduce chance of losses and differential sticking. Increase mud weight as needed with **NewBar**.
- As density increases additions of **NewEdge** and/or **DrillThin** should be added for rheology control.
- As bottom hole temperatures increase and additional fluid loss control is desired supplement the **AquaBlock** with **NewPac** for fluid loss control. Lower API filtrate to 6-8 cc's with additions of **NewPAC** and **AquaBlock**.
- As mud weight is increased seepage and/or lost circulation may become a problem. For seepage pump 20-30 bbl pills containing a combination of **NewCarb** and **DynaFiber** mixed at a 2:1 ratio. If partial or total returns are encountered, LCM sweeps with a varied size distribution including **Cedar Fiber** and **Fiber Seal**, **PhenoSeal** and other assorted sizes should be considered and incorporated into the system as needed. 20-25% LCM in the active system may be required. The type, size and quantity of LCM used will depend on the severity of losses. If losses are severe a **New X-Prima** squeeze should be considered.
- At TD increase funnel viscosity for logs and casing operations as hole conditions dictate. Suggest funnel viscosity be increased to 50-55 sec/qt, before logging or casing operations be attempted.
- While circulating casing it is recommended to reduce Yield Points for cementing operations.



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# Production Interval

## 6-1/8" Hole (12,375'-16,730')

Questar  
Exploration & Production  
WV 16C-14-8-21  
Sec 14-T8S-R21E  
Uintah, County Utah

### Production Interval Drilling Fluid Properties

Depth Interval (TVD)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft <sup>2</sup> )	O/W Ratio %	HPHT Fluid Loss (ml/30min)	Excess Lime (PPB)	Electrical Stability (MV)	Low Gravity Solids	CaCl Mg/l Water
12,375'-16,730'	15.0-15.5	25-35	8-10	85:15	10-20	2-4	500+	< 6	300K

### Drilling Fluid Recommendations: (12,375'-16,730')

- Displace to a OptiDrill OBM after finishing the casing job at 12,375'.
- After displacement, maintain the OptiDrill system within the parameters outlined above.
- Offsets in the area have encountered high rates of seepage in this interval. If indications of seepage are observed, sweeps of NewCarb C, Dynafiber C & M, NewSeal, and CyberSeal are recommended. Mixing ratios are recommended to be at 5:1 NewCarb M to DynaFiber, NewSeal, and CyberSeal. If losses continue to be a problem, consider trying different sizes and combinations until seepage is slowed.
- Maintain rheology low to reduce ECD values and reduce surge and swab during connections and trips.
- Drill as underbalanced as possible to help prevent losses and increase penetration rates.
- For pressure control, spot high weight pills with an equivalent mud weight to drilling ECD's. On trips in, stage these pills out and divert to storage for further use. High weight pills in excess of the drilling ECD should be avoided due to possible lost circulation.

Challenges	Strategies
Displacement	<ul style="list-style-type: none"> <li>Have 1200-1300 bbls of OBM volume on location along with a pump capable of keeping up with displacement rates.</li> <li>Pump a 10-20 bbl viscosified OBM spacer ahead of the OptiDrill (enough for 500 ft + separation)</li> <li>A steady pump rate for either turbulent or plug flow should be used. Reciprocate and rotate to assist in minimizing channeling.</li> <li>Do not shut down once displacement commences.</li> <li>Should any contamination occur, isolate the contaminated fluid for reconditioning.</li> </ul>
Seepage/lost Circulation.	Pump LCM sweeps when seepage and/or losses are indicated. Sweeps should be a mixture of, NewCarb, DynaFiber, NewSeal, and CyberSeal. If lost returns are encountered, consider a Di-aseal M or cross linked polymer squeeze.
Maintaining Oil wet solids	For every 1.0 ppg mud weight increase, mix 0.02 gal/bbl OptiWet
Pressure control	<ul style="list-style-type: none"> <li>Spot weighted pills calculated to give a bottom hole pressure equal to drilling ECD.</li> <li>Do not exceed drilling bottom hole pressure with the ECD pill. Lost circulation has been a problem on offset wells.</li> <li>Stage weighted pills out of the hole and recover for future use.</li> </ul>



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**QUESTAR EXPLORATION AND PRODUCTION COMPANY**

**WELLSITE CUTTINGS MANAGEMENT PLAN**

**UINTA BASIN PROJECT AREA**  
**WV 16C-14-8-21**  
**Township: 8 South, Range 21 East**

**Uintah County, Utah**

# UINTA BASIN CUTTINGS MANAGEMENT PLAN

## Solidifying / Stabilizing Cuttings Pits

### 1. PROJECT DESCRIPTION

We drill and set conductor, then drill, case and cement surface casing, then drill, run casing, and cement intermediate sections, then finally drill the production holes. This insures that surface water is protected and is not exposed to more saline waters and that treatable water is not exposed to oil based mud (OBM). In addition, water and oil is skimmed off during the various phases for reuse and to minimize the fluid levels in the pit.

The wells to be drilled use oil base drilling fluid during the production section of each well. As the production section of the well is drilled, drill cuttings will be generated and separated from the drilling fluid, then deposited in a single on-site waste pit with synthetic liners (cuttings pit). These oil base mud cuttings (OBMC) are expected to contain elevated levels of adhered entrained hydrocarbons due to their prior contact with the OBM. The OBMC will be collected in a steel catch tank as drilling progresses, moved to the cuttings pit by a wheel loader, and mixed with the water based cuttings generated during drilling of the upper sections of the wellbore.

A state approved contractor will treat the waste placed in the cuttings pit using the solidification/stabilization (S/S) process described below. Prior to beginning the S/S process, the contractor will collect samples of the contents of the cuttings pit for criteria verification. The waste will be treated in place inside the pit and contractor will finish by backfilling the pit constituting final disposal of the drilling waste.

### 2. GENERAL DESCRIPTION OF THE SOLIDIFICATION/STABILIZATION PROCESS

The S/S process involves the controlled addition of a specially blended Portland-cement-based reagent to the drilled cuttings, OBM and WBM solids and liquids, and makeup water as required followed by thorough mixing of the reagent with the waste to form homogeneous slurry. Hydrocarbons and chlorides in the waste are broken up into very small droplets or "particles" and these particles are dispersed throughout the reagent/waste mixture during the mixing phase. After the mixing phase, an irreversible chemical reaction occurs between the cementitious reagent and water present in the slurry causing the slurry mixture to rapidly transform into a solid granular material. The previously dispersed and isolated particles are immobilized to a very high degree within the interlocked cementitious lattice of each solidified granule. This waste treatment process prevents the hydrocarbons or chlorides from re-coalescing within the processed waste form and reduces their release to the surrounding environment. Chemical properties imparted by the process also stabilize various metals, if present in the waste, by transforming them into less-soluble forms. This in conjunction with the physical entrapment of metals within each solidified granule greatly reduces their availability to the surrounding environment. In summary S/S rapidly transforms physically unstable waste into a stable solid material and reduces the leaching rate of target constituents to such a degree that they can no longer cause harm to the surrounding environment.

### 3. ESTIMATED VOLUMES PER WELL

Section	Top	Bottom	Size	Volume, ft3	Swell	Excess	Tot Vol, ft3	Tot Vol, bbl
Surface	60	500	17.5	735	1.3	1.7	1,624	289
Intermediate	500	5,260	12.25	3,896	1.3	1.4	7,091	1,263
Intermediate	5,260	12,375	8.5	2,804	1.3	1.4	5,103	909
Production	12,375	16,730	6.125	891	1.3	1.3	1,506	268
Additional Volume							1,937	345
Total per Well							17,262	3,074

# UINTA BASIN CUTTINGS MANAGEMENT PLAN

## Solidifying / Stabilizing Cuttings Pits

### 4. PROJECT OBJECTIVES

The S/S objectives are:

- 1 To permanently reduce the leaching rate of target constituents to at or below prescribed limits for confinement in the soil.
  - 1.1 Leachable Oil and Grease will be less than 10 mg/L.
  - 1.2 Leachable Total Dissolved Solids will be less than 5000 mg/L and/or leachable salts will be below acceptable site-specific guidelines.
  - 1.3 Compliance with the performance criteria will be certified by a third party accredited testing laboratory utilizing the appropriate tests as prescribed. Laboratory test results will be documented in a closure report submitted to the client and to the required regulatory agencies as may be required after completion of the project.
- 2 To solidify the unconsolidated waste to support backfilling soil cover and resist subsidence.
- 3 Rapid solidification of the waste to reduce pit closure time.
- 4 Minimize waste volume increase to maximize depth of native soil cover over processed material.

### 5. CONTRACTOR ACTIVITIES

1. Contractor will collect samples of the raw waste and bench test to determine S/S reagent formulation and reagent/waste mix ratios necessary to achieve performance criteria.
2. Contractor will deliver equipment and experienced personnel to the site.
3. Contractor supervisor will conduct a job site safety assessment with crew discussing relevant site safety hazards, required PPE, and accident avoidance. Contractor safety meetings will be held prior to each day's work throughout the project.
4. Contractor and client representative will determine the final actual volume of contents to treat in each pit at the subject site prior to commencing operations.
5. Contractor will construct proper storm drainage protection, if necessary, to surround the pit areas during the project.
6. Contractor will perform preliminary admixing of each pit's contents prior to S/S reagent introduction and prepare the site to facilitate waste processing. Care will be taken to maintain waste containment throughout all processing phases.
7. Contractor will prepare and deliver S/S reagents to the site. Reagents will be added to the pit waste utilizing a special filter-equipped discharge hopper.
8. Contractor will perform the S/S on the waste in-situ in order to chemically solidify the waste and immobilize target constituents of concern within the processed material.
9. After processing all the waste, contractor will collect a composite sample of the processed pit material and submit the sample to a certified third party laboratory for analysis to verify the processed material complies with criteria indicated in the Project Objectives, Section 4.
10. Contractor will place a minimum of three feet (3') of native spoil over the S/S material in the pit in order to backfill to the adjacent grade constituting final disposal of the processed material. Spoil for backfilling will be taken from existing excavated spoils at the site.
11. Contractor will then promptly demobilize equipment and personnel concluding site operations.

# HALLIBURTON

**Q E P E-bill**

**1050 17th Street, Ste 500-do Not Ma  
Denver, Colorado 80265**

WV 16C-14-8-21  
Red Wash Field  
Uintah County, Utah  
United States of America

## Multiple String Cement Recommendation

Prepared for: Mr. John Owen  
July 2, 2008  
Version: 161669-1

Submitted by:  
Aaron James  
Halliburton  
1125 17th St Suite 1900  
Denver, Colorado 80202  
303.899.4717

**HALLIBURTON**

# HALLIBURTON

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*Halliburton appreciates the opportunity to present  
this proposal and looks forward to being of service to you.*

## **Foreword**

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Enclosed is our recommended procedure for cementing the casing strings in the referenced well. The information in this proposal includes well data, calculations, materials requirements, and cost estimates. This proposal is based on information from our field personnel and previous cementing services in the area.

Halliburton Energy Services recognizes the importance of meeting society's needs for health, safety, and protection of the environment. It is our intention to proactively work with employees, customers, the public, governments, and others to use natural resources in an environmentally sound manner while protecting the health, safety, and environmental processes while supplying high quality products and services to our customers.

We appreciate the opportunity to present this proposal for your consideration and we look forward to being of service to you. Our Services for your well will be coordinated through the Service Center listed below. If you require any additional information or additional designs, please feel free to contact myself or our field representative listed below.

Prepared by: \_\_\_\_\_  
Sally Hourigan  
Proposal Specialist

Submitted by: \_\_\_\_\_  
Aaron James  
Technical Advisor

SERVICE CENTER:  
SERVICE COORDINATOR:  
PSL DISTRICT MANAGER:  
CEMENT ENGINEERS:

PHONE NUMBER:

SERVICE CENTER:  
SERVICE COORDINATOR:  
CEMENT ENGINEERS:

PHONE NUMBER:

Vernal, UT  
Corey Reynolds  
David Poole  
Tyler Anderson  
Chris Cicirello  
Sean Jones  
Ted Groff  
Shawn Farote  
435-789-2550

Rock Springs, WY  
Wayne Mount/Randy Moore  
Bridgette Lawrence  
Mark Husman  
Nicole Burmahl  
Jeffery Wienhoff  
307-352-8600

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## ***Job Information***

## ***13 3/8" Surface Casing***

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Well Name: WV

Well #: 16C-14-8-21

17 1/2" Surface Openhole

0 - 500 ft (MD)

Inner Diameter

17.500 in

Job Excess

100 %

13 3/8" Surface Casing

0 - 500 ft (MD)

Outer Diameter

13.375 in

Inner Diameter

12.615 in

Linear Weight

54.500 lbm/ft

Casing Grade

K-55

Mud Type

Polymer

Mud Weight

9.200 lbm/gal

# HALLIBURTON

## Job Recommendation

## 13 3/8" Surface Casing

### Fluid Instructions

Fluid 1: Water Spacer

Fresh Water

Fluid Density: 8.340 lbm/gal

Fluid Volume: 20 bbl

### Fluid 2: Primary Cement

Premium Cement

94 lbm/sk Premium Cement (Cement)

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

2 % Calcium Chloride (Accelerator)

Fluid Weight 15.800 lbm/gal

Slurry Yield: 1.165 ft<sup>3</sup>/sk

Total Mixing Fluid: 4.998 Gal/sk

Top of Fluid: 0 ft

Calculated Fill: 500 ft

Volume: 123.720 bbl

Calculated Sacks: 596.255 sks

Proposed Sacks: 600 sks

### Fluid 3: Water Spacer

Water Displacement

Fluid Density: 8.340 lbm/gal

Fluid Volume: 77.295 bbl

### Fluid 4: Top Out Cement

Standard Cement

94 lbm/sk Standard Cement (Cement)

2 % Calcium Chloride (Accelerator)

Fluid Weight 15.800 lbm/gal

Slurry Yield: 1.166 ft<sup>3</sup>/sk

Total Mixing Fluid: 5.038 Gal/sk

Proposed Sacks: 200 sks

# HALLIBURTON

## Job Procedure

## 13 3/8" Surface Casing

### Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Fresh Water	8.3		20 bbl
2	Cement	Premium G Cement	15.8		600 sks
3	Spacer	Water Displacement	8.3		77.295 bbl
4	Cement	Top Out Cement	15.8		200 sks

# HALLIBURTON

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## **Job Information**

## **9 5/8" Intermediate Casing**

---

Well Name: WV

Well #: 16C-14-8-21

13 3/8" Surface Casing	0 - 500 ft (MD)
Outer Diameter	13.375 in
Inner Diameter	12.615 in
Linear Weight	54.500 lbm/ft
Casing Grade	K-55

12-1/4" Intermediate Open Hole	500 - 5260 ft (MD)
Inner Diameter	12.250 in
Job Excess	40 %

9 5/8" Intermediate Casing	0 - 5260 ft (MD)
Outer Diameter	9.625 in
Inner Diameter	8.681 in
Linear Weight	47 lbm/ft
Casing Grade	HCP110

Mud Type	KCl/Polymer
Mud Weight	9.200 lbm/gal
BHCT	95 degF

# HALLIBURTON

## Job Recommendation

## 9 5/8" Intermediate Casing

### Fluid Instructions

Fluid 1: Water Based Spacer

Gel Water Ahead

Fluid Density: 8.400 lbm/gal  
Fluid Volume: 20 bbl

Fluid 2: Reactive Spacer

Super Flush

Fluid Density: 9.200 lbm/gal  
Fluid Volume: 20 bbl

Fluid 3: Water Spacer

Fresh Water Behind

Fluid Density: 8.340 lbm/gal  
Fluid Volume: 10 bbl

Fluid 4: Foamed Lead Cement

50/50 Poz Premium

0.1 % HALAD-766 (Low Fluid Loss Control)

5 lbm/sk Silicalite Compacted (Light Weight Additive)

20 % SSA-1 (Heavy Weight Additive)

0.1 % Versaset (Thixotropic Additive)

1.5 % FDP-C760-04 (Foamer)

Fluid Weight: 14.300 lbm/gal  
Slurry Yield: 1.469 ft<sup>3</sup>/sk  
Total Mixing Fluid: 6.399 Gal/sk  
Top of Fluid: 0 ft  
Calculated Fill: 3000 ft  
Volume: 227.532 bbl  
Calculated Sacks: 563.484 sks  
Proposed Sacks: 565 sks

Fluid 5: Foamed Tail Cement

50/50 Poz Premium

0.1 % HALAD-766 (Low Fluid Loss Control)

5 lbm/sk Silicalite Compacted (Light Weight Additive)

20 % SSA-1 (Heavy Weight Additive)

0.1 % Versaset (Thixotropic Additive)

1.5 % FDP-C760-04 (Foamer)

Fluid Weight: 14.300 lbm/gal  
Slurry Yield: 1.469 ft<sup>3</sup>/sk  
Total Mixing Fluid: 6.399 Gal/sk  
Top of Fluid: 3000 ft  
Calculated Fill: 1760 ft  
Volume: 137.444 bbl  
Calculated Sacks: 390.869 sks  
Proposed Sacks: 395 sks

Fluid 6: Tail Cement

50/50 Poz Premium

0.1 % HALAD-766 (Low Fluid Loss Control)

5 lbm/sk Silicalite Compacted (Light Weight Additive)

20 % SSA-1 (Heavy Weight Additive)

0.1 % Versaset (Thixotropic Additive)

1.5 % FDP-C760-04 (Foamer)

Fluid Weight: 14.300 lbm/gal  
Slurry Yield: 1.469 ft<sup>3</sup>/sk  
Total Mixing Fluid: 6.399 Gal/sk  
Top of Fluid: 4760 ft  
Calculated Fill: 500 ft  
Volume: 42.121 bbl  
Calculated Sacks: 160.990 sks  
Proposed Sacks: 165 sks

# HALLIBURTON

---

Fluid 7: Water Spacer  
Displacement

Fluid Density: 8.340 lbm/gal  
Fluid Volume: 381.990 bbl

Fluid 8: Top Out Cement  
Premium Cement

94 lbm/sk Premium Cement (Cement)  
12 % Cal-Seal 60 (Accelerator)  
3 % Calcium Chloride (Accelerator)

Fluid Weight: 14.600 lbm/gal  
Slurry Yield: 1.550 ft<sup>3</sup>/sk  
Total Mixing Fluid: 7.347 Gal/sk  
Proposed Sacks: 200 sks

# HALLIBURTON

## Job Procedure

## 9 5/8" Intermediate Casing

### Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Gel Water Ahead	8.4	5.0	20 bbl
2	Spacer	Super Flush	9.2	5.0	20 bbl
3	Spacer	Fresh Water Behind	8.3	5.0	10 bbl
4	Cement	Foamed Lead	14.3	5.0	565 sks
5	Cement	Foamed Tail	14.3	5.0	395 sks
6	Cement	Unfoamed Tail	14.3	5.0	165 sks
7	Spacer	Displacement	8.3	7.0	381.990 bbl
8	Cement	12/3/ Thixo	14.6	1.5	200 sks

### Foam Output Parameter Summary:

Fluid #	Fluid Name	Unfoamed Liquid Volume	Beginning Density lbm/gal	Ending Density lbm/gal	Beginning Rate scf/bbl	Ending Rate scf/bbl
Stage 1						
4	Foamed Lead	147.43bb l	9.5	9.5	51.0	362.5
5	Foamed Tail	102.27bb l	11.0	11.0	212.1	339.7

### Foam Design Specifications:

Foam Calculation Method: Constant Density  
Backpressure: 250 psig  
Bottom Hole Circulating Temp: 95 degF  
Mud Outlet Temperature: 80 degF

Calculated Gas = 58613.0 scf  
Additional Gas = 40000 scf  
Total Gas = 98613.0 scf

# HALLIBURTON

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## *Job Information*

## *7" Intermediate Casing*

---

Well Name: WV

Well #: 16C-14-8-21

### 9 5/8" Intermediate Casing

0 - 5260 ft (MD)

Outer Diameter

9.625 in

Inner Diameter

8.681 in

Linear Weight

47 lbm/ft

Casing Grade

HCP110

### 8 1/2" Intermediate Open Hole

5260 - 12375 ft (MD)

Inner Diameter

8.500 in

Job Excess

25 %

### 7" Intermediate Casing

0 - 9000 ft (MD)

Outer Diameter

7.000 in

Inner Diameter

6.276 in

Linear Weight

26 lbm/ft

Casing Grade

HCP110

### 7" Intermediate Casing

9000 - 12375 ft (MD)

Outer Diameter

7.000 in

Inner Diameter

6.184 in

Linear Weight

29 lbm/ft

Mud Type

Polymer

Mud Weight

13.500 lbm/gal

BHCT

150 degF

# HALLIBURTON

## Job Recommendation

## 7" Intermediate Casing

### Fluid Instructions

Fluid 1: Water Based Spacer

Gel Water Ahead

Fluid Density: 8.400 lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Reactive Spacer

Super Flush

Fluid Density: 9.200 lbm/gal

Fluid Volume: 20 bbl

Fluid 3: Water Spacer

Fresh Water Behind

Fluid Density: 8.340 lbm/gal

Fluid Volume: 10 bbl

Fluid 4: Foamed Lead Cement

50/50 Poz Premium

0.1 % HALAD-766 (Low Fluid Loss Control)

5 lbm/sk Silicalite Compacted (Light Weight Additive)

20 % SSA-1 (Heavy Weight Additive)

0.1 % Versaset (Thixotropic Additive)

1.5 % FDP-C760-04 (Foamer)

Fluid Weight 14.300 lbm/gal

Slurry Yield: 1.469 ft<sup>3</sup>/sk

Total Mixing Fluid: 6.399 Gal/sk

Top of Fluid: 0 ft

Calculated Fill: 11875 ft

Volume: 321.445 bbl

Calculated Sacks: 900.058 sks

Proposed Sacks: 905 sks

Fluid 5: Tail Cement

50/50 Poz Premium

0.1 % HALAD-766 (Low Fluid Loss Control)

5 lbm/sk Silicalite Compacted (Light Weight Additive)

20 % SSA-1 (Heavy Weight Additive)

0.1 % Versaset (Thixotropic Additive)

1.5 % FDP-C760-04 (Foamer)

Fluid Weight 14.300 lbm/gal

Slurry Yield: 1.469 ft<sup>3</sup>/sk

Total Mixing Fluid: 6.399 Gal/sk

Top of Fluid: 11875 ft

Calculated Fill: 500 ft

Volume: 14.116 bbl

Calculated Sacks: 53.952 sks

Proposed Sacks: 55 sks

Fluid 6: Water Based Spacer

Mud Displacement

Fluid Density: 13 lbm/gal

Fluid Volume: 469.741 bbl

Fluid 7: Top Out Cement

Premium Cement

94 lbm/sk Premium Cement (Cement)

12 % Cal-Seal 60 (Accelerator)

3 % Calcium Chloride (Accelerator)

Fluid Weight 14.600 lbm/gal

Slurry Yield: 1.550 ft<sup>3</sup>/sk

Total Mixing Fluid: 7.347 Gal/sk

Proposed Sacks: 200 sks

# HALLIBURTON

## Job Procedure

## 7" Intermediate Casing

### Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Gel Water Ahead	8.4		20 bbl
2	Spacer	Super Flush	9.2		20 bbl
3	Spacer	Fresh Water Behind	8.3		10 bbl
4	Cement	50/50 Poz Premium - Foamed	14.3		905 sks
5	Cement	50/50 Poz Premium - Unfoamed	14.3		55 sks
6	Spacer	Mud Displacement	13.0		469.741 bbl
7	Cement	Cap Cement	14.6		200 sks

### Foam Output Parameter Summary:

Fluid #	Fluid Name	Unfoamed Liquid Volume	Beginning Density lbm/gal	Ending Density lbm/gal	Beginning Rate scf/bbl	Ending Rate scf/bbl
<b>Stage 1</b>						
4	50/50 Poz Premium - Foamed	235.49bbl	11.0	11.0	27.5	761.9

### Foam Design Specifications:

Foam Calculation Method: Constant Density  
Backpressure: 250 psig  
Bottom Hole Circulating Temp: 150 degF  
Mud Outlet Temperature: 130 degF

Calculated Gas = 96017.5 scf  
Additional Gas = 40000 scf  
Total Gas = 136017.5 scf

# HALLIBURTON

---

## Job Information

## 4 1/2" Production Casing

---

Well Name: WV

Well #: 16C-14-8-21

7" Intermediate Casing	0 - 9000 ft (MD)
Outer Diameter	7.000 in
Inner Diameter	6.276 in
Linear Weight	26 lbm/ft
Casing Grade	HCP110
7" Intermediate Casing	9000 - 12375 ft (MD)
Outer Diameter	7.000 in
Inner Diameter	6.184 in
Linear Weight	29 lbm/ft
6 1/8" Open Hole	12375 - 16730 ft (MD)
Inner Diameter	6.125 in
Job Excess	35 %
4 1/2" Production Casing	0 - 13000 ft (MD)
Outer Diameter	4.500 in
Inner Diameter	3.826 in
Linear Weight	15.100 lbm/ft
Casing Grade	P-110
4 1/2" Production Casing	13000 - 15000 ft (MD)
Outer Diameter	4.500 in
Inner Diameter	3.826 in
Linear Weight	15.100 lbm/ft
Casing Grade	Q-125
4 1/2" Production Casing	15000 - 16730 ft (MD)
Outer Diameter	4.500 in
Inner Diameter	3.754 in
Linear Weight	16.600 lbm/ft
Casing Grade	Q-125
Mud Type	Oil Based
Mud Weight	15.100 lbm/gal

# HALLIBURTON

## Job Recommendation

## 4 1/2" Production Casing

### Fluid Instructions

#### Fluid 1: Reactive Spacer

##### Tuned Spacer

0.5 gal/bbl Pen-5M (Surfactant)  
379 lbm/bbl Barite (Heavy Weight Additive)  
0.5 gal/bbl Musol(R) A (Additive Material)  
0.5 gal/bbl SEM-7 (Additive Material)

Fluid Density: 15.500 lbm/gal  
Fluid Volume: 30 bbl

#### Fluid 2: Primary Cement

##### Premium Cement

94 lbm/sk Premium Cement (Cement)  
17.5 % SSA-1 (Cement Material)  
0.5 % HR-601 (Cement Material)  
0.2 % Halad(R)-344 (Low Fluid Loss Control)  
0.5 % Halad(R)-413 (Low Fluid Loss Control)  
0.3 % CFR-3 (Cement Material)  
0.2 % HR-25 (Retarder)  
0.2 % Super CBL (Expander)  
0.2 % Suspend HT (Cement Material)  
17.5 % Common White-100 Mesh, SSA-2 (Additive Material)  
0.3 % D-AIR 3000 (Defoamer)

Fluid Weight: 16.200 lbm/gal  
Slurry Yield: 1.453 ft<sup>3</sup>/sk  
Total Mixing Fluid: 5.636 Gal/sk  
Top of Fluid: 5000 ft  
Calculated Fill: 11730 ft  
Volume: 231.961 bbl  
Calculated Sacks: 896.328 sks  
Proposed Sacks: 900 sks

#### Fluid 3: Water Spacer

##### Water Displacement

Fluid Density: 8.340 lbm/gal  
Fluid Volume: 236.983 bbl

# HALLIBURTON

## Job Procedure

## 4 1/2" Production Casing

### Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Tuned Spacer	15.5		30 bbl
2	Cement	Premium Cement	16.2		900 sks
3	Spacer	Water Displacement	8.3		236.983 bbl

**QUESTAR EXPLORATION AND PRODUCTION COMPANY**

**WELLSITE CUTTINGS MANAGEMENT PLAN**

**UINTA BASIN PROJECT AREA**  
**WV 16C-14-8-21**  
**Township: 8 South, Range 21 East**

**Uintah County, Utah**

# UINTA BASIN CUTTINGS MANAGEMENT PLAN

## Solidifying / Stabilizing Cuttings Pits

### 1. PROJECT DESCRIPTION

We drill and set conductor, then drill, case and cement surface casing, then drill, run casing, and cement intermediate sections, then finally drill the production holes. This insures that surface water is protected and is not exposed to more saline waters and that treatable water is not exposed to oil based mud (OBM). In addition, water and oil is skimmed off during the various phases for reuse and to minimize the fluid levels in the pit.

The wells to be drilled use oil base drilling fluid during the production section of each well. As the production section of the well is drilled, drill cuttings will be generated and separated from the drilling fluid, then deposited in a single on-site waste pit with synthetic liners (cuttings pit). These oil base mud cuttings (OBMC) are expected to contain elevated levels of adhered entrained hydrocarbons due to their prior contact with the OBM. The OBMC will be collected in a steel catch tank as drilling progresses, moved to the cuttings pit by a wheel loader, and mixed with the water based cuttings generated during drilling of the upper sections of the wellbore.

A state approved contractor will treat the waste placed in the cuttings pit using the solidification/stabilization (S/S) process described below. Prior to beginning the S/S process, the contractor will collect samples of the contents of the cuttings pit for criteria verification. The waste will be treated in place inside the pit and contractor will finish by backfilling the pit constituting final disposal of the drilling waste.

### 2. GENERAL DESCRIPTION OF THE SOLIDIFICATION/STABILIZATION PROCESS

The S/S process involves the controlled addition of a specially blended Portland-cement-based reagent to the drilled cuttings, OBM and WBM solids and liquids, and makeup water as required followed by thorough mixing of the reagent with the waste to form homogeneous slurry. Hydrocarbons and chlorides in the waste are broken up into very small droplets or "particles" and these particles are dispersed throughout the reagent/waste mixture during the mixing phase. After the mixing phase, an irreversible chemical reaction occurs between the cementitious reagent and water present in the slurry causing the slurry mixture to rapidly transform into a solid granular material. The previously dispersed and isolated particles are immobilized to a very high degree within the interlocked cementitious lattice of each solidified granule. This waste treatment process prevents the hydrocarbons or chlorides from re-coalescing within the processed waste form and reduces their release to the surrounding environment. Chemical properties imparted by the process also stabilize various metals, if present in the waste, by transforming them into less-soluble forms. This in conjunction with the physical entrapment of metals within each solidified granule greatly reduces their availability to the surrounding environment. In summary S/S rapidly transforms physically unstable waste into a stable solid material and reduces the leaching rate of target constituents to such a degree that they can no longer cause harm to the surrounding environment.

### 3. ESTIMATED VOLUMES PER WELL

Section	Top	Bottom	Size	Volume, ft3	Swell	Excess	Tot Vol, ft3	Tot Vol, bbl
Surface	60	500	17.5	735	1.3	1.7	1,624	289
Intermediate	500	5,260	12.25	3,896	1.3	1.4	7,091	1,263
Intermediate	5,260	12,375	8.5	2,804	1.3	1.4	5,103	909
Production	12,375	16,730	6.125	891	1.3	1.3	1,506	268
Additional Volume							1,937	345
Total per Well							17,262	3,074

# UINTA BASIN CUTTINGS MANAGEMENT PLAN

## Solidifying / Stabilizing Cuttings Pits

### 4. PROJECT OBJECTIVES

The S/S objectives are:

- 1 To permanently reduce the leaching rate of target constituents to at or below prescribed limits for confinement in the soil.
  - 1.1 Leachable Oil and Grease will be less than 10 mg/L.
  - 1.2 Leachable Total Dissolved Solids will be less than 5000 mg/L and/or leachable salts will be below acceptable site-specific guidelines.
  - 1.3 Compliance with the performance criteria will be certified by a third party accredited testing laboratory utilizing the appropriate tests as prescribed. Laboratory test results will be documented in a closure report submitted to the client and to the required regulatory agencies as may be required after completion of the project.
- 2 To solidify the unconsolidated waste to support backfilling soil cover and resist subsidence.
- 3 Rapid solidification of the waste to reduce pit closure time.
- 4 Minimize waste volume increase to maximize depth of native soil cover over processed material.

### 5. CONTRACTOR ACTIVITIES

1. Contractor will collect samples of the raw waste and bench test to determine S/S reagent formulation and reagent/waste mix ratios necessary to achieve performance criteria.
2. Contractor will deliver equipment and experienced personnel to the site.
3. Contractor supervisor will conduct a job site safety assessment with crew discussing relevant site safety hazards, required PPE, and accident avoidance. Contractor safety meetings will be held prior to each day's work throughout the project.
4. Contractor and client representative will determine the final actual volume of contents to treat in each pit at the subject site prior to commencing operations.
5. Contractor will construct proper storm drainage protection, if necessary, to surround the pit areas during the project.
6. Contractor will perform preliminary admixing of each pit's contents prior to S/S reagent introduction and prepare the site to facilitate waste processing. Care will be taken to maintain waste containment throughout all processing phases.
7. Contractor will prepare and deliver S/S reagents to the site. Reagents will be added to the pit waste utilizing a special filter-equipped discharge hopper.
8. Contractor will perform the S/S on the waste in-situ in order to chemically solidify the waste and immobilize target constituents of concern within the processed material.
9. After processing all the waste, contractor will collect a composite sample of the processed pit material and submit the sample to a certified third party laboratory for analysis to verify the processed material complies with criteria indicated in the Project Objectives, Section 4.
10. Contractor will place a minimum of three feet (3') of native spoil over the S/S material in the pit in order to backfill to the adjacent grade constituting final disposal of the processed material. Spoil for backfilling will be taken from existing excavated spoils at the site.
11. Contractor will then promptly demobilize equipment and personnel concluding site operations.

**DIVISION OF OIL, GAS AND MINING**

***SPUDDING INFORMATION***

Name of Company: QUESTAR EXPL & PROD COMPANY

Well Name: WV 16C-14-8-21

Api No: 43-047-38737 Lease Type: FEDERAL

Section 14 Township 08S Range 21E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # RATHOLE

**SPUDDED:**

Date 08/20/08

Time 5:30 PM

How DRY

***Drilling will Commence:*** \_\_\_\_\_

Reported by KERRY SALES

Telephone # (801) 598-5087

Date 08/21/08 Signed CHD

Form 3160-5

(June 1990)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED

Budget Bureau No. 1004-0135

Expires: March 31, 1993

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT—" for such proposals

## SUBMIT IN TRIPLICATE

1. Type of Well

Oil

Gas

☐

Well

☒

Well

☐

Other

2. Name of Operator

QUESTAR EXPLORATION &amp; PRODUCTION CO.

3. Address and Telephone No.

11002 EAST 17500 SOUTH - VERNAL, UT 84078

Contact: Dahn.Caldwell@questar.com

435-781-4342 Fax 435-781-4357

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

48' FSL, 1092' FEL, SESE, SEC 14-T8S-R21E

5. Lease Designation and Serial No.

UTU-0807

6. If Indian, Allottee or Tribe Name

UTE TRIBE

7. If Unit or CA, Agreement Designation

WONSITS VALLEY UNIT

8. Well Name and No.

WV 16C 14 8 21

9. API Well No.

43-047-38737

10. Field and Pool, or Exploratory Area

WONSITS VALLEY

11. County or Parish, State

UINTAH

## 12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

☐

Notice of Intent

☒

Subsequent Report

☐

Final Abandonment Notice

## TYPE OF ACTION

☐

Abandonment

☐

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☒

Other SPUD

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

On 8/20/08 - Drilled 80' of 30" conductor hole. Set 80' of 20" conductor pipe. Cmt'd w/ Ready Mix.

3 - BLM, 2- Utah OG&amp;M, 1 - Denver, 1 - file Word file-server

14. I hereby certify that the foregoing is true and correct.

Signed Dahn F. Caldwell

Office Administrator II

Date

8/21/08

(This space for Federal or State office use)

Approved by:

Title

Conditions of approval, if any

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Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

State of Utah  
Division of Oil, Gas and Mining.

ENTITY ACTION FORM - FORM 6

OPERATOR: Questar Exploration & Production Co.  
ADDRESS: 11002 East 17500 South  
Vernal, Utah 84078 (435)781-4342

OPERATOR ACCT. No. N-5085

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
B	99999	14864	43-047-38737	WV 16C 14 8 21	SESE	14	8S	21	Uintah	8/20/08	9/25/08

WELL 1 COMMENTS:

MVRB = WSMVM

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WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected

(3/89)

Signature

Office Administrator II 8/21/08

Title

Date

Phone No. (435)781-4342

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RECEIVED

SEP 09 2008

DIV. OF OIL, GAS & MINING

## Questar E &amp; P

Page 1 of 2

## Operations Summary Report

Legal Well Name: WV 16C-14-8-21  
 Common Well Name: WV 16C-14-8-21  
 Event Name: DRILLING  
 Contractor Name: SST Energy  
 Rig Name: SST

Start: 8/20/2008  
 Rig Release:  
 Rig Number: 66

Spud Date: 8/20/2008  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
8/22/2008	06:00 - 10:00	4.00	LOC	2	DRLCON	SPUD CONDUCTOR ON 8/20/08 AT 17:00 HRS. DRILLED 80' OF 30" HOLE AND RUN 20" PIPE. CEMENTED WITH READY MIX.
	10:00 - 20:30	10.50	DRL	9	DRLSUR	HAMMER DRILL 17 1/2" HOLE TO 527'. BLOW DOWN WELL.
	20:30 - 21:30	1.00	TRP	3	DRLSUR	LAY DOWN DRILL STRING.
	21:30 - 03:30	6.00	CSG	2	CSGSUR	RUN 12 JOINTS OF 13 3/8", 68#, J-55, BTC CASING AS FOLLOWS: SHOE AT 510', FLOAT COLLAR AT 465.25'. RAN 3 CENTRALIZERS FROM 500' TO 381' AND ONE AT 84'. ALL MEASUREMENTS ARE FROM GROUND LEVEL.
	03:30 - 04:30	1.00	CMT	2	CSGSUR	CEMENT CASING AS FOLLOWS: PUMP 70 BBL WATER, 20 BBL GEL SPACER. LEAD 15.8 PPG, YEALD 1.15, GAL/SK 5, 102.4 BBL, 500 SK OF PREMIUM CLASS G CEMENT. DISPLACE WITH 70 BBL OF WATER. PLUG BUMPED TO 800 PSI FOR 5 MINUTES OK. FLOAT HELD. 28 BBL OF CEMENT TO SURFACE.
9/24/2008	04:30 - 06:00	1.50	WOT	1	CSGSUR	WAIT ON CEMENT.
	06:00 -				CSGSUR	CONTACT BLM MICHAEL LEE ON 8/14/08 AT 15:20 HRS FOR SPUD CONDUCTOR ON 8/20/08 AT 17:00 HRS.
						CONTACT UTAH STATE ON 8/14/08 AT 17:43 HRS FOR CONDUCTOR ON 8/20/08 AT 17:00 HRS.
						NOTIFIED RED WASH AND WONSIT VALLEY.
						CONTACT BLM JAMIE SPARGER ON 8/21/08 AT 16:08 HRS FOR RUN CASING AND CEMENT ON 8/22/08 AT 04:00 HRS.
9/24/2008	06:00 - 18:00	12.00	LOC	4	MIRU	LAY TOP DRIVE DOWN, READY DERRICK AND LAY OVER AND UNSTRING. MOVE DRILL PIPE AND HOUSES. START BREAKING BACKYARD APART.
9/25/2008	18:00 - 06:00	12.00	OTH		MIRU	WAIT ON DAYLIGHT
	06:00 - 18:00	12.00	LOC	4	MIRU	SET OUT LINER, SET MUD TANKS & MUD PUMPS, SET DERRICK OFF SUB, HAUL LOADS
9/26/2008	18:00 - 06:00	12.00	LOC	4	MIRU	W/O/DAYLIGHT
	06:00 - 18:00	12.00	LOC	4	MIRU	R/D SUBBASE, SET MATS, STACK SUBBASE, SET IN BOP'S, R/U BACK YARD
9/27/2008	18:00 - 06:00	12.00	LOC	4	MIRU	W/O/DAYLIGHT
	06:00 - 18:00	12.00	LOC	4	MIRU	R/U SUBBASE & SET IN FLOOR PLATES & DRAWWORKS, PULL POWER CABLES, PIN DERRICK TO FLOOR
9/28/2008	18:00 - 06:00	12.00	LOC	4	MIRU	W/O/DAYLIGHT
	06:00 - 18:00	12.00	LOC	4	MIRU	STRING UP, RAISE DERRICK, SET TANK FARM, SET SOLID CONTROL EQUIPMENT, BRIDLE DOWN, P/U TOP DRIVE
9/29/2008	18:00 - 06:00	12.00	LOC	4	MIRU	W/O/DAYLIGHT
	06:00 - 06:00	24.00	LOC	4	MIRU	R/U FLOOR, CHOKER, PASON, INSTALL FLARE LINES, CHANGE OUT LINERS IN PUMPS TO 6",
9/30/2008	06:00 - 09:00	3.00	BOP	1	DRLIN1	N/U BOP
	09:00 - 09:30	0.50	BOP	2	DRLIN1	TEST TD VALVES, 5000 HI, 250 LOW
	09:30 - 13:30	4.00	WOT	4	DRLIN1	W/O/TEST TRUCK
	13:30 - 14:00	0.50	BOP	2	DRLIN1	TEST DART VALVE, 5000 HI, 250 LOW
	14:00 - 16:00	2.00	BOP	2	DRLIN1	WORK TEST PLUG THROUGH ANNULAR
	16:00 - 22:00	6.00	BOP	2	DRLIN1	TEST BOP & CHOKER, 5000 HI, 250 LOW, CASING 1500 PSI
	22:00 - 04:00	6.00	BOP	1	DRLIN1	N/D ROTATING HEAD & ANNULAR CAP TO CHANGE OUT ELEMENT
	04:00 - 06:00	2.00	BOP	1	DRLIN1	NIPPLE UP CAP ON ANNULAR
10/1/2008	06:00 - 07:00	1.00	BOP	1	DRLIN1	INSTALL CAP ON HYDRIL & FUNCTION TEST
	07:00 - 10:30	3.50	BOP	1	DRLIN1	N/U ROTATING HEAD & FLOW LINE
	10:30 - 11:30	1.00	BOP	2	DRLIN1	TEST HYDRIL TO 3500 HI, 250 LOW, TEST KOOMEY
	11:30 - 12:00	0.50	OTH		DRLIN1	INSTALL WEAR BUSHING

## Operations Summary Report

Legal Well Name: WV 16C-14-8-21

Common Well Name: WV 16C-14-8-21

Event Name: DRILLING

Contractor Name: SST Energy

Rig Name: SST

Start: 8/20/2008

Rig Release:

Rig Number: 66

Spud Date: 8/20/2008

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
10/1/2008	12:00 - 16:30	4.50	TRP	1	DRLIN1	P/U 12 1/4 BHA
	16:30 - 17:00	0.50	DRL	4	DRLIN1	DRLG OUT FLOAT EQUIPMENT
	17:00 - 17:30	0.50	RIG	2	DRLIN1	TIGHTEN UNION ON FLOW LINE
	17:30 - 18:30	1.00	DRL	4	DRLIN1	DRLG OUT FLOAT EQUIPMENT
	18:30 - 19:00	0.50	RIG	1	DRLIN1	RIG SERVICE
	19:00 - 20:30	1.50	DRL	4	DRLIN1	DRLG OUT FLOAT EQUIPMENT, POCKET & 10 FT NEW HOLE
	20:30 - 21:00	0.50	EQT	2	DRLIN1	FIT TO EMW 10.5, MUD WT 8.4, 62 PSI
	21:00 - 23:30	2.50	DRL	1	DRLIN1	DRLG F/560 TO 842 (282 FT 112.8 FPH) WOB 8-10 RPM 135 GPM 855
	23:30 - 00:00	0.50	RIG	1	DRLIN1	RIG SERVICE
	00:00 - 02:00	2.00	DRL	1	DRLIN1	DRLG F/842 TO 1033 (191 FT 95.5 FPH)
10/2/2008	02:00 - 02:30	0.50	SUR	1	DRLIN1	CIR & SURVEY @939 INC 0 AZ 175.5 TVD 0
	02:30 - 06:00	3.50	DRL	1	DRLIN1	DRLG F/1033 TO 1278 (245 FT 70 FPH)
	06:00 - 07:00	1.00	DRL	1	DRLIN1	DRLG F/1278 TO 1315
	07:00 - 07:30	0.50	RIG	2	DRLIN1	WORK ON MUD PUMP, LINER WASHER
	07:30 - 14:00	6.50	DRL	1	DRLIN1	DRLG F/1315 TO 1587 (272 FT 41.84 FPH) WOB 10-15 RPM 135-155 GPM 855
	14:00 - 14:30	0.50	SUR	1	DRLIN1	CIR & SURVEY@1493 .2 DEG AZ 72.8 TVD 1493
	14:30 - 01:00	10.50	DRL	1	DRLIN1	DRLG F/1587 TO 2096 (509 FT 48.47 FPH) WOB 10-15 RPM 135-155 GPM 855
	01:00 - 01:30	0.50	SUR	1	DRLIN1	CIR & SURVEY @2002 .3 DEG AZ 320.1 TVD 2002
	01:30 - 06:00	4.50	DRL	1	DRLIN1	DRLG F/2096 TO 2318 (222 FT 49.33 FPH) WOB 10-15 RPM 145 GPM 855

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## Operations Summary Report

Legal Well Name: WV 16C-14-8-21

Common Well Name: WV 16C-14-8-21

Event Name: DRILLING

Contractor Name: SST Energy

Rig Name: SST

Start: 8/20/2008

Rig Release: 11/22/2008

Rig Number: 66

Spud Date: 8/20/2008

End: 11/22/2008

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
11/4/2008	08:00 - 09:00	1.00	CSG	2	DRLIN2	RUN 7 INCH CASING F/ 11624 T/ 12190
	09:00 - 10:30	1.50	REAM	2	DRLIN2	WASH DOWN CASING F/ 12190 T/ 12309
	10:30 - 12:00	1.50	CIRC	1	DRLIN2	SHUT IN WELL CIRCULATE OUT ECD PILL AND GAS
	12:00 - 12:30	0.50	CSG	2	DRLIN2	RUN AND LAND 7 INCH CASING @ 12341
	12:30 - 14:30	2.00	CIRC	1	DRLIN2	CIRCULATE OUT ECD PILL AND GAS
	14:30 - 15:00	0.50	CSG	1	DRLIN2	RIG DOWN FILL TOOL
	15:00 - 16:30	1.50	CMT	1	DRLIN2	SAFETY MEETING, RIG UP HALIBURTON CEMENT CREW, PRESSURE TEST CEMENT LINES TO 6000 PSI PRESSURE TEST NITROGEN LINES TO 8000 PSI
	16:30 - 22:00	5.50	CMT	2	DRLIN2	CEMENT INTERMEDIATE #2 BUMP PLUG @ 1845, DISPLACE W/ 460 BBL OIL BASE MUD, CASING PRESSURE TEST @ 2700 PSI FOR 30 MINUTES, PUMP TOP JOB TO 2100 FEET
	22:00 - 22:30	0.50	CMT	1	DRLIN2	RIG DOWN CEMENTERS
	22:30 - 00:00	1.50	CSG	1	DRLIN2	RIG DOWN CASING ELEVATORS AND SLIPS
	00:00 - 02:30	2.50	BOP	1	DRLIN2	NIPPLE DOWN BPOE
	02:30 - 04:00	1.50	BOP	1	DRLIN2	INSTALL "C" SECTION TEST TO 7000 5 MINUTES
	04:00 - 06:00	2.00	BOP	1	DRLIN2	NIPPLE UP BPOE
	06:00 - 13:00	7.00	BOP	1	DRLPRO	NIPPLE UP ROTATE HEAD, CHARGE ACCUMULATOR BOTTLES, RIG UP CHOKE LINE, KILL LINE, DRIP PANS, FLOW LINE, RIG UP TD FOR TESTING
11/5/2008	13:00 - 14:00	1.00	BOP	1	DRLPRO	RIG UP TESTERS
	14:00 - 00:00	10.00	BOP	2	DRLPRO	TEST IBOP, MAN LWCV, TIW HANDLING VALVE, LOWER PIPE RAMS, UPPER PIPE RAMS, BLIND RAMS TO 10000 PSI 10 MINUTE 250 PSI 5 MINUTE, MUD LINES 3500 PSI 10 MINUTE
11/6/2008	00:00 - 01:00	1.00	BOP	1	DRLPRO	NIPPLE UP ROTARY HEAD BEARING PACK
	01:00 - 06:00	5.00	TRP	3	DRLPRO	LAY DOWN 4.5 DRILL PIPE
	06:00 - 15:30	9.50	TRP	3	CSGPRO	LAY DOWN 4 1/2" DRILL PIPE IN THE MOUSE HOLE
	15:30 - 17:00	1.50	OTH		CSGPRO	STRAP BHA AND RIG UP FLOOR FOR 4" DRILL PIPE
	17:00 - 19:30	2.50	TRP	3	CSGPRO	PICK UP 4" BHA
	19:30 - 20:30	1.00	RIG	6	CSGPRO	CUT DRILL LINE 162'
	20:30 - 21:30	1.00	OTH		CSGPRO	CENTER TOP DRIVE & STRAP 4" DRILL PIPE
	21:30 - 23:00	1.50	TRP	3	CSGPRO	TIH PICKING UP DRILL PIPE TO 2500' (PRESSURE INCREASE 500 PSI WHILE FILLING PIPE)
	23:00 - 02:00	3.00	TRP	2	CSGPRO	MIX & PUMP DRY SLUG TOOH CHECK PLUGGED JETS
	02:00 - 03:30	1.50	OTH		CSGPRO	CHANGE OUT MOTORS & SURFACE TEST
11/7/2008	03:30 - 06:00	2.50	TRP	2	CSGPRO	TIH TO 2500', PICK UP DRILL PIPE
	06:00 - 16:00	10.00	TRP	3	DRLPRO	PICK UP 4" DRILL PIPE
	16:00 - 18:00	2.00	DRL	4	DRLPRO	DRILL CEMENT AND FLOAT EQUIPMENT, PLUS 10' OF NEW HOLE F/12220 T/12370
	18:00 - 18:30	0.50	EQT	2	DRLPRO	FIT TEST TO 650 PSI- 15.5 EMW
	18:30 - 04:00	9.50	DRL	1	DRLPRO	DRILLING F/12370 T/ 127730' 360' 37.9'/HR WOB 12K RPM 135 GPM 211
11/8/2008	04:00 - 05:00	1.00	RIG	2	DRLPRO	WORK ON PUMPS-CHANGE PUMP SWAB
	05:00 - 06:00	1.00	OTH		DRLPRO	CONNECTIONS, CLEAN SUCTION SCREENS & SPR
	06:00 - 16:30	10.50	DRL	1	DRLPRO	DRILLING F/12730 T/13207 477' 45.4'/HR WOB 12/14 DHRPM 135 GPM 211
	16:30 - 17:00	0.50	RIG	1	DRLPRO	RIG SERVICE
11/9/2008	17:00 - 04:00	11.00	DRL	1	DRLPRO	DRILLING F/13207 T/ 13794' 587' 53.3'/HR
	04:00 - 06:00	2.00	OTH		DRLPRO	CONNECTIONS & SPR
	06:00 - 16:00	10.00	DRL	1	DRLPRO	DRILLING F/13794 T/ 14084' 290' 29'/HR
	16:00 - 16:30	0.50	RIG	1	DRLPRO	RIG SERVICE
	16:30 - 04:30	12.00	DRL	1	DRLPRO	DRILLING F/ 14084' T/ 14564' 480' 40'/HR
	04:30 - 06:00	1.50	OTH		DRLPRO	CONNECTIONS & SPR

## Operations Summary Report

Legal Well Name: WV 16C-14-8-21

Common Well Name: WV 16C-14-8-21

Event Name: DRILLING

Contractor Name: SST Energy

Rig Name: SST

Spud Date: 8/20/2008  
Start: 8/20/2008 End: 11/22/2008

Rig Release: 11/22/2008 Group:

Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
11/10/2008	06:00 - 14:30	8.50	DRL	1	DRLPRO	DRILLING F/14564 T/14940 376' 44.2'/HR WOB 12-15 DHRPM 160 GPM 229
	14:30 - 15:00	0.50	RIG	1	DRLPRO	RIG SERVICE
	15:00 - 00:00	9.00	DRL	1	DRLPRO	DRILLING F/14940 T/ 15305 365' 40.5'/HR WOB 14-18 DHRPM 150 GPM 211
	00:00 - 01:30	1.50	OTH		DRLPRO	CONNECTIONS & SPR
	01:30 - 03:30	2.00	SUR	1	DRLPRO	CIRCULATE, BUILD DRY SLUG, DROP SURVEY, PUMP DRY SLUG
11/11/2008	03:30 - 06:00	2.50	TRP	10	DRLPRO	TOOH W/ BIT # 12
	06:00 - 11:00	5.00	TRP	10	DRLPRO	TRIP OUT OF HOLE FOR BIT
	11:00 - 12:00	1.00	TRP	10	DRLPRO	CHANGE OUT MOTOR, PULL SURVEY AND PICK UP BIT #13
	12:00 - 18:30	6.50	TRP	10	DRLPRO	TRIP IN HOLE WITH BIT #13 TO 15235'
	18:30 - 19:00	0.50	REAM	1	DRLPRO	WASH & REAM 70' (PRECAUTIONARY)
11/12/2008	19:00 - 05:00	10.00	DRL	1	DRLPRO	DRILL F/ 15305' TO 15720' 415' 41.5'/HR WOB 14 DHRPM 115 GPM 229
	05:00 - 06:00	1.00	OTH		DRLPRO	CONNECTIONS & SPR
	06:00 - 12:30	6.50	DRL	1	DRLPRO	DRILLING F/15720 T/16011 291' 44.8'/HR WOB 14/15 DHRPM 115 GPM 229
	12:30 - 13:00	0.50	RIG	1	DRLPRO	RIG SERVICE
	13:00 - 13:30	0.50	OTH		DRLPRO	CHANGE OUT ROTATING HEAD RUBBER
11/13/2008	13:30 - 22:00	8.50	DRL	1	DRLPRO	DRILLING F/16011 T/ 16340' 329' 38.7'/HR WOB 15/17 DHRPM 115 GPM 229
	22:00 - 23:00	1.00	OTH		DRLPRO	CONNECTIONS & SPR
	23:00 - 00:00	1.00			DRLPRO	DROP SURVEY, MIX & PUMP DRY SLUG
	00:00 - 06:00	6.00	TRP	10	DRLPRO	TOOH W/ BIT # 13
	06:00 - 07:30	1.50	TRP	10	DRLPRO	TRIP OUT OF HOLE WITH BIT #13
11/14/2008	07:30 - 08:30	1.00	TRP	1	DRLPRO	CHANGE OUT BIT AND BHA, CLEAN RIG FLOOR
	08:30 - 14:30	6.00	TRP	10	DRLPRO	TRIP IN HOLE WITH BIT #14 TO SHOE
	14:30 - 15:00	0.50	OTH		DRLPRO	FIX CLAMP ON ROTATING HEAD
	15:00 - 16:30	1.50	RIG	6	DRLPRO	CUT DRILLING LINE
	16:30 - 19:00	2.50	TRP	10	DRLPRO	TRIP IN HOLE
11/15/2008	19:00 - 19:30	0.50	REAM	1	DRLPRO	WASH AND REAM 70' TO BOTTOM, NO FILL
	19:30 - 05:30	10.00	DRL	1	DRLPRO	DRILLING F/16340 T/ 16426' 86' 8.6'/HR WOB 14 DHRPM 75 GPM 211
	05:30 - 06:00	0.50	OTH		DRLPRO	CONNECTION & SPR
	06:00 - 02:30	20.50	DRL	2	DRLPRO	DRILLING F/ 16426' TO 16561' 135' 6.5'/HR WOB 15 DHRPM 75 GPM 211
	02:30 - 03:00	0.50	RIG	1	DRLPRO	RIG SERVICE
11/16/2008	03:00 - 05:30	2.50	DRL	1	DRLPRO	DRILLING F/ 16561' TO 16570' 9' 4.5'/HR WOB 17 DHRPM 75 GPM 211
	05:30 - 06:00	0.50	OTH		DRLPRO	CONNECTIONS & SPR
	06:00 - 07:00	1.00	CIRC	1	DRLPRO	CIRCULATE, FLOW CHECK AND PUMP TRIP SLUG
	07:00 - 14:30	7.50	TRP	1	DRLPRO	TRIP OUT OF HOLE WITH BIT #14. SLM WAS 13.64' SHORT
	14:30 - 15:00	0.50	TRP	1	DRLPRO	LAY DOWN TORQUE BUSTER AND CHANGE OUT BITS
11/17/2008	15:00 - 22:00	7.00	TRP	10	DRLPRO	TRIP IN HOLE WITH BIT#15 (INSTALL NEW ROTATING HEAD RUBBER)
	22:00 - 22:30	0.50	REAM	1	DRLPRO	SAFETY WASH & REAM
	22:30 - 06:00	7.50	DRL	1	DRLPRO	DRILLF/ 16570' TO 16622' 52' 6.9'/HR WOB 14-15 DHRPM 75 GPM 229
	06:00 - 14:00	8.00	DRL	1	DRLPRO	DRILLING F/16622 T/16655 33' 4.1'/HR WOB 15/18 RPM 50/75 GPM 229
	14:00 - 03:00	13.00	RIG	2	DRLPRO	RIG REPAIR-RIG HAD POWER SURGE AND BLOWED MAIN TRANSFORMER. WAITED ON ELECTRICIAN. POWER RESTORED TO RIG. WORK TIGHT HOLE @ F/16655 T/16640, CAME FREE.

## Operations Summary Report

Legal Well Name: WV 16C-14-8-21

Common Well Name: WV 16C-14-8-21

Event Name: DRILLING

Contractor Name: SST Energy

Rig Name: SST

Start: 8/20/2008

Rig Release: 11/22/2008

Rig Number: 66

Spud Date: 8/20/2008

End: 11/22/2008

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
11/16/2008	14:00 - 03:00	13.00	RIG	2	DRLPRO	WASHED AND REAMED TO BOTTOM.
	03:00 - 06:00	3.00	DRL	1	DRLPRO	DRILLING F/16655 T/ 16665' 10' 3.3'/HR WOB 14/18 RPM 60/75 GPM 229
11/17/2008	06:00 - 08:30	2.50	DRL	1	DRLPRO	DRILLING F/16665 T/16667
	08:30 - 09:30	1.00	CIRC	1	DRLPRO	CIRCULATE, BUILD AND PUMP TRIP SLUG
	09:30 - 14:00	4.50	TRP	10	DRLPRO	TRIP OUT OF HOLE FOR BIT , STOP @ 10398
	14:00 - 18:00	4.00	RIG	2	DRLPRO	RIG REPAIR-CHANGE BURNT TRANSFORMER WITH BACK UPS, LOAD TEST WITH ALL 480 VOLT COMPONENTS.
11/18/2008	18:00 - 22:30	4.50	TRP	10	DRLPRO	TRIP OUT OF HOLE, CHANGE OUT JARS
	22:30 - 23:00	0.50	TRP	1	DRLPRO	CHANGE OUT BITS & CLEAN FLOOR
	23:00 - 06:00	7.00	TRP	10	DRLPRO	TRIP IN HOLE W/ BIT # 16
	06:00 - 06:30	0.50	REAM	1	DRLPRO	WASH AND REAM 75' TO TO BOTTOM, NO FILL
	06:30 - 13:30	7.00	DRL	1	DRLPRO	DRILLING F/16667 T/16690'
	13:30 - 14:00	0.50	CIRC	1	DRLPRO	CIRCULATE AND CONDITION HOLE FOR SHORT TRIP
	14:00 - 14:30	0.50	TRP	14	DRLPRO	SHORT TRIP 5 STANDS
	14:30 - 16:30	2.00	CIRC	1	DRLPRO	CIRCULATE AND CONDITION HOLE FOR LOGS
	16:30 - 23:30	7.00	TRP	2	DRLPRO	TRIP OUT OF HOLE FOR LOGS
	23:30 - 06:00	6.50	LOG	1	DRLPRO	RIG UP LOGGERS AND LOG, FIRST RUN PLATFORM EXPRESS LOGGERS DEPTH 16688', TOOL FAILURE, PULL OUT AND REPLACE TOOL
11/19/2008	06:00 - 23:30	17.50	LOG	1	EVALPR	LOGGING, FIRST RUN PEX TOOL FAILURE, SECOND RUN PEX, THIRD RUN OBM, FOURTH RUN DIPOLE SONIC
	23:30 - 01:00	1.50	LOG	1	EVALPR	RIG DOWN SCHLUMBERGER
	01:00 - 06:00	5.00	TRP	2	EVALPR	TRIP IN TO CONDITION FOR CASING WILL SLIP AND CUT DRILLING LINE AT SHOE
11/20/2008	06:00 - 06:30	0.50	TRP	2	EVALPR	TRIP INTO SHOE
	06:30 - 07:30	1.00	RIG	6	EVALPR	SLIP AND CUT DRILLING LINE
	07:30 - 10:30	3.00	TRP	2	EVALPR	FINISH TRIP IN
	10:30 - 11:00	0.50	REAM	1	EVALPR	WASH AND REAM LAST STD TO BOTTOM
	11:00 - 13:30	2.50	CIRC	1	EVALPR	CIRCULATE, BOTTOMS UP FLARE 25'
11/21/2008	13:30 - 06:00	16.50	TRP	3	EVALPR	LAY DOWN DRILL STRING
	06:00 - 06:30	0.50	OTH		CSGPRO	PULL WEAR BUSHING
	06:30 - 08:30	2.00	CSG	1	CSGPRO	RIG UP CASING CREW HELD SAFETY MEETING
	08:30 - 23:00	14.50	CSG	2	CSGPRO	RAN 44 JTS OF 4 1/2" #16.6 Q-125, 44 JTS OF #15.1 Q-125, 302 JTS OF #15.1 P-110, PLUS 4 MARKER JTS AND FLOAT COLLAR AND FLOAT SHOE STACKED LANDED AT 16690' KB
	23:00 - 02:00	3.00	CIRC	1	CSGPRO	CIRCULATE CASING
11/22/2008	02:00 - 04:30	2.50	CMT	2	CSGPRO	HEAD UP HALLIBURTON AND CEMENT PRESSURE TEST LINES TO 8000 PSI, PUMPED 40 BBLS OF 15 PPG TUNED SPACER, 205.6 BBLS OF 15 PPG 1.71 YIELD CEMENT DISPLACED WITH 236 BBLS OF 8.33 PPG CLAYFIX WATER, BUMPED PLUG 1000 PSI OVER CIRCULATING PRESSURE HELD 15 MIN, FLOATS HELD GOOD RETURNS THROUGH OUT JOB
	04:30 - 06:00	1.50	WOT	1	CSGPRO	WOC, STRIP OBM BACK TO 10 PPG
	06:00 - 13:00	7.00	BOP	1	CSGPRO	NIPPLE DOWN SET SLIPS 100000 IN SLIPS
	13:00 - 06:00	17.00	OTH		CSGPRO	STRIP OBM DOWN TO 10 PPG, CLEAN SUB, PUMPS AND OUT BUILDINGS FOR RIG MOVE RIG DOWN RIG RELEASE AT 06:00, 11/22/2008 GOT PERMISSION TO USE WV16G FOR STAGE OUT ON RIG MOVE

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## QUESTAR

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## Operations Summary Report

Legal Well Name: WV 16C-14-8-21  
Common Well Name: WV 16C-14-8-21  
Event Name: COMPLETION  
Contractor Name: SST Energy  
Rig Name: SST

Spud Date: 8/20/2008  
Start: 12/2/2008 End:  
Rig Release: 11/22/2008 Group:  
Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/2/2008	08:00 - 12:00	4.00	LOG	2	C-LOG	MIRU OWP ELU. MU AND RIH WITH CCL/GR/CBL/DL LOGGING TOOLS AND TAG CORRELATED PBTD AT 16,676' (FC @ 16,687'). PRESSURE UP TO 4,000 PSI AND LOG UP TO 7,300'. BLEED PRESSURE TO ZERO AND POOH. RDMO ELU. EST. TOC AT 7,820'. BHT= 320*.
12/3/2008	13:00 - 14:00	1.00	EQT	1	C-OTH	MIRU IPS PUMP AND TEST 4 1/2" CSG TO 10,000 PSI AND 4 1/2 X 7" ANNULUS TO 3,000 PSI. BOTH HELD GOOD. BLEED PRESSURE TO ZERO. RDMO PUMP.
12/7/2008	09:00 - 15:00	6.00	WHD	2	C-PRE	SPOT AND START FILLING HES MOUNTAIN MOVERS. NU 15K FRAC TREE, SCHOONER HCR AND STINGER FRAC HEAD. SET FRAC STAND. START HEATING FRAC WATER
12/8/2008	08:00 - 13:30	5.50	PERF	2	C-PERF	MIRU IPS FB AND OWP ELU. MU & RIH WITH 2.5" GUNS. SHOOT 42 HOLES FROM 16,213' TO 16,671'. 1,000 PSI WHEN GUNS WERE FIRED. 1,200 PSI WITH GUNS AT SURFACE.
12/9/2008	13:30 - 06:00	16.50	STIM	2	C-STIM	MIRU HES FRAC EQUIPMENT.
	06:00 - 07:30	1.50	STIM	3	C-STIM	FRAC STAGE #1 WITH 1,488 BBLS 35# HYBOR-G CARRYING 47,467 LBS 30/50 SBXL AND 16,719 LBS 30/60 SINTERLITE SAND FROM .5 TO 4 PPA. AVG RATE= 44.3 BPM. AVG PSI = 10,866.
	07:30 - 10:10	2.67	PERF	2	C-PERF	STAGE #2. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 16,090' WITH 8,100 PSI. SHOOT 42 HOLES FROM 15,412' TO 16,062'.
	10:10 - 11:25	1.25	STIM	3	C-STIM	FRAC STAGE #2 WITH 1,991 BBLS SLICKWATER CARRYING 8,553 LBS 30/50 SBXL, 5,974 LBS 30/50 TLC AND 8,461 LBS 30/60 SINTERLITE SAND FROM .5 TO 1.25 PPA. AVG RATE= 35.7 BPM. AVG PSI = 11,237.
	11:25 - 13:35	2.17	PERF	2	C-PERF	STAGE #3. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 15,320' WITH 8,000 PSI. SHOOT 42 HOLES FROM 14,815' TO 15,308'.
	13:35 - 15:25	1.83	STIM	3	C-STIM	FRAC STAGE #3 WITH 2,530 BBLS SLICKWATER CARRYING 12,578 LBS 30/60 SINTERLITE AND 30,500 LBS 30/50 TLC SAND AND FROM .5 TO 1.75 PPA. AVG RATE= 40.2 BPM. AVG PSI = 10,896.
	15:25 - 17:30	2.08	PERF	2	C-PERF	STAGE #4. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT 14,698' WITH 8,000 PSI. SHOOT 42 HOLES FROM 14,233' TO 14,686'.
	17:30 - 19:00	1.50	STIM	3	C-STIM	FRAC STAGE #4 WITH 2,411 BBLS SLICKWATER CARRYING 35,921 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 43.5 BPM. AVG PSI = 10,443.
	19:00 - 21:45	2.75	PERF	2	C-PERF	STAGE #5. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT 14,100' WITH 7,700 PSI. SHOOT 42 HOLES FROM 13,629' TO 14,075'.
	21:45 - 23:00	1.25	STIM	3	C-STIM	FRAC STAGE #5 WITH 2,501 BBLS SLICKWATER CARRYING 24,281 LBS 30/50 WHITE SAND AND 15,623 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 40.9 BPM. AVG PSI = 9,725.
	23:00 - 01:45	2.75	PERF	2	C-PERF	STAGE #6. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT 13,490' WITH 7,400 PSI. SHOOT 42 HOLES FROM 12,727' TO 13,468'.
	01:45 - 02:50	1.08	STIM	3	C-STIM	FRAC STAGE #6 WITH 2,501 BBLS SLICKWATER CARRYING 25,455 LBS 30/50 WHITE SAND AND 14,886 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 46.4 BPM. AVG PSI = 8,732.
	02:50 - 05:30	2.67	PERF	2	C-PERF	STAGE #7. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT --' WITH -- PSI. SHOOT 42 HOLES FROM 12,727' TO 13,468'.
	05:30 - 07:30	2.00	STIM	3	C-STIM	FRAC STAGE #7 WITH 2,452 BBLS SLICKWATER CARRYING 25,308

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## Operations Summary Report

Legal Well Name: WV 16C-14-8-21  
 Common Well Name: WV 16C-14-8-21  
 Event Name: COMPLETION  
 Contractor Name: SST Energy  
 Rig Name: SST

Start: 12/2/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66  
 Spud Date: 8/20/2008  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
12/9/2008	05:30 - 07:30	2.00	STIM	3	C-STIM	LBS 30/50 WHITE SAND AND 14,662 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 45.2 BPM. AVG PSI = 7,842.
12/10/2008	07:30 - 09:05	1.58	PERF	2	C-PERF	STAGE #8. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT 11,340' WITH 5,500 PSI. SHOOT 42 HOLES FROM 11,002' TO 11,330'.
	09:05 - 10:15	1.17	STIM	3	C-STIM	FRAC STAGE #8 WITH 2,690 BBLS SLICKWATER CARRYING 45,013 LBS 30/50 WHITE AND 18,725 LBS 30/50 TLC SAND FROM .5 TO 2 PPA. AVG RATE= 46.2 BPM. AVG PSI = 6,642.
	10:15 - 11:55	1.67	PERF	2	C-PERF	STAGE #9. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 10,850' WITH 3,700 PSI. SHOOT 36 HOLES FROM 10,269' TO 10,831'.
	11:55 - 13:10	1.25	STIM	3	C-STIM	FRAC STAGE #9 WITH 3,145 BBLS SLICKWATER CARRYING 53,294 LBS 30/50 WHITE AND 32,809 LBS 30/50 TLC SAND FROM .5 TO 2 PPA. AVG RATE= 47.5 BPM. AVG PSI = 5,365.
	13:10 - 14:30	1.33	PERF	2	C-PERF	STAGE #10. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT 9,920' WITH 3,400 PSI. SHOOT 42 HOLES FROM 8,919' TO 9,893'.
	14:30 - 15:50	1.33	STIM	3	C-STIM	FRAC STAGE #10 WITH 2,879 BBLS SLICKWATER CARRYING 57,375 LBS 30/50 WHITE AND 17,347 LBS 20/40 PROPTAC SAND FROM .5 TO 2 PPA. AVG RATE= 46.3 BPM. AVG PSI = 4,887.
	15:50 - 16:55	1.08	PERF	2	C-PERF	STAGE #11. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 8,590' WITH 3,000 PSI. SHOOT 18 HOLES FROM 8,526' TO 8,562'.
	16:55 - 17:30	0.58	STIM	3	C-STIM	FRAC STAGE #11 WITH 667 BBLS DELTA 200 CARRYING 31,812 LBS 30/50 WHITE AND 12,630 LBS 20/40 PROPTAC SAND FROM 1 TO 4 PPA. AVG RATE= 46.3 BPM. AVG PSI = 4,902.
	17:30 - 18:45	1.25	PERF	2	C-PERF	STAGE #12. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 7,720' WITH 2,500 PSI. SHOOT 30 HOLES FROM 7,278' TO 7,699'.
	18:45 - 19:30	0.75	STIM	3	C-STIM	FRAC STAGE #12 WITH 706 BBLS SLICKWATER CARRYING 34,098 LBS 30/50 WHITE AND 20,590 LBS 20/40 PROPTAC SAND FROM 1 TO 4 PPA. AVG RATE= 48 BPM. AVG PSI = 4,434.
12/11/2008	19:30 - 06:00	10.50	LOC	4	C-STIM	RDMO OWP ELU AND HES FRAC EQUIPMENT.
	06:00 - 21:30	15.50	DRL	6	C-STIM	MIRU IPS CTU, GCDOE AND SPIRIT FLUIDS. LOAD CT WITH 120* WATER. MU QES 2 7/8" MOTOR/JARS AND 3.55" 5-BLADE JUNK MILL. TEST STACK TO 8,000 PSI. RIH AND DRILL OUT 11 PLUGS IN 5.5 HOURS TO PBTD DEPTH OF 16,687'. PUMP FINAL SWEEP AND POOH. RDMO IPS CTU, GCDOE & SPIRIT FLUIDS.
	21:30 - 06:00	8.50	PTST	2	C-POST	FLOWING TO SALES THROUGH IPS FBE.
12/12/2008	06:00 - 06:00	24.00	PTST	2	C-POST	FLOWING TO SALES THROUGH IPS FBE.
12/13/2008	06:00 - 06:00	24.00	PTST	2	C-POST	FLOWING TO SALES THROUGH IPS FBE.
12/14/2008	06:00 - 06:00	24.00	PTST	2	C-POST	FLOWING TO SALES THROUGH IPS FBE.
12/15/2008	06:00 - 06:00	24.00	PTST	2	C-POST	RDMO IPS FBE. FLOWING TO SALES THROUGH PRODUCTION EQUIPMENT.

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## Questar E & P Operations Summary Report - DRILLING

Page 1 of 10

Well Name: WV 18C-14-8-21  
Location: 14-8-S 21-E 26  
Rlg Name: SST

Spud Date: 8/20/2008  
Rlg Release: 11/22/2008  
Rlg Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
8/22/2008	06:00 - 10:00	4.00	LOC	2	SPUD CONDUCTOR ON 8/20/08 AT 17:00 HRS.
	10:00 - 20:30	10.50	DRL	9	DRILLED 80' OF 30" HOLE AND RUN 20" PIPE. CEMENTED WITH READY MIX.
	20:30 - 21:30	1.00	TRP	3	HAMMER DRILL 17 1/2" HOLE TO 527'. BLOW DOWN WELL.
	21:30 - 03:30	6.00	CSG	2	LAY DOWN DRILL STRING.
					RUN 12 JOINTS OF 13 3/8", 68#, J-55, BTC CASING AS FOLLOWS: SHOE AT 510', FLOAT COLLAR AT 465.25'. RAN 3 CENTRALIZERS FROM 500' TO 381' AND ONE AT 84'. ALL MEASUREMENTS ARE FROM GROUND LEVEL.
	03:30 - 04:30	1.00	CMT	2	CEMENT CASING AS FOLLOWS: PUMP 70 BBL WATER, 20 BBL GEL SPACER. LEAD 15.8 PPG, YEALD 1.15, GAL/SK 5, 102.4 BBL, 500 SK OF PREMIUM CLASS G CEMENT. DISPLACE WITH 70 BBL OF WATER. PLUG BUMPED TO 800 PSI FOR 5 MINUTES OK. FLOAT HELD. 28 BBL OF CEMENT TO SURFACE.
9/24/2008	04:30 - 06:00	1.50	WOT	1	WAIT ON CEMENT.
	06:00 -				CONTACT BLM MICHAEL LEE ON 8/14/08 AT 15:20 HRS FOR SPUD CONDUCTOR ON 8/20/08 AT 17:00 HRS.
					CONTACT UTAH STATE ON 8/14/08 AT 17:43 HRS FOR CONDUCTOR ON 8/20/08 AT 17:00 HRS.
					NOTIFIED RED WASH AND WONSIT VALLEY.
					CONTACT BLM JAMIE SPARGER ON 8/21/08 AT 16:08 HRS FOR RUN CASING AND CEMENT ON 8/22/08 AT 04:00 HRS.
					LAY TOP DRIVE DOWN, READY DERRICK AND LAY OVER AND UNSTRING.
9/25/2008	06:00 - 18:00	12.00	LOC	4	MOVE DRILL PIPE AND HOUSES. START BREAKING BACKYARD APART.
	18:00 - 06:00	12.00	OTH		WAIT ON DAYLIGHT
9/26/2008	06:00 - 18:00	12.00	LOC	4	SET OUT LINER, SET MUD TANKS & MUD PUMPS, SET DERRICK OFF SUB, HAUL LOADS
	18:00 - 06:00	12.00	LOC	4	W/O/DAYLIGHT
9/27/2008	06:00 - 18:00	12.00	LOC	4	R/D SUBBASE, SET MATS, STACK SUBBASE, SET IN BOP'S, R/U BACK YARD
	18:00 - 06:00	12.00	LOC	4	W/O/DAYLIGHT
9/28/2008	06:00 - 18:00	12.00	LOC	4	R/U SUBBASE & SET IN FLOOR PLATES & DRAWWORKS, PULL POWER CABLES, PIN DERRICK TO FLOOR
	18:00 - 06:00	12.00	LOC	4	W/O/DAYLIGHT
9/29/2008	06:00 - 18:00	12.00	LOC	4	STRING UP, RAISE DERRICK, SET TANK FARM, SET SOLID CONTROL EQUIPMENT, BRIDLE DOWN, P/U TOP DRIVE
	18:00 - 06:00	12.00	LOC	4	W/O/DAYLIGHT
9/30/2008	06:00 - 09:00	3.00	BOP	1	R/U FLOOR, CHOKE, PASON, INSTALL FLARE LINES, CHANGE OUT LINERS IN PUMPS TO 6".
	09:00 - 09:30	0.50	BOP	2	N/U BOP
	09:30 - 13:30	4.00	WOT	4	TEST TD VALVES, 5000 HI, 250 LOW
	13:30 - 14:00	0.50	BOP	2	W/O/TEST TRUCK
	14:00 - 16:00	2.00	BOP	2	TEST DART VALVE, 5000 HI, 250 LOW
	16:00 - 22:00	6.00	BOP	2	WORK TEST PLUG THROUGH ANNULAR
	22:00 - 04:00	6.00	BOP	1	TEST BOP & CHOKE, 5000 HI, 250 LOW, CASING 1500 PSI
	04:00 - 06:00	2.00	BOP	1	N/D ROTATING HEAD & ANNULAR CAP TO CHANGE OUT ELEMENT
	06:00 - 07:00	1.00	BOP	1	NIPPLE UP CAP ON ANNULAR
	07:00 - 10:30	3.50	BOP	1	INSTALL CAP ON HYDRIL & FUNCTION TEST
10/1/2008	10:30 - 11:30	1.00	BOP	2	N/U ROTATING HEAD & FLOW LINE
	11:30 - 12:00	0.50	OTH		TEST HYDRIL TO 3500 HI, 250 LOW, TEST KOOMEY
	12:00 - 16:30	4.50	TRP	1	INSTALL WEAR BUSHING
	16:30 - 17:00	0.50	DRL	4	P/U 12 1/4 BHA
	17:00 - 17:30	0.50	RIG	2	DRLG OUT FLOAT EQUIPMENT
	17:30 - 18:30	1.00	DRL	4	TIGHTEN UNION ON FLOW LINE
	18:30 - 19:00	0.50	RIG	1	DRLG OUT FLOAT EQUIPMENT
	19:00 - 20:30	1.50	DRL	4	RIG SERVICE
					DRLG OUT FLOAT EQUIPMENT, POCKET & 10 FT NEW HOLE

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DIV. OF OIL, GAS &amp; MINING

## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 28  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
10/1/2008	20:30 - 21:00	0.50	EQT	2	FIT TO EMW 10.5, MUD WT 8.4, 62 PSI
	21:00 - 23:30	2.50	DRL	1	DRLG F/580 TO 842 (282 FT 112.8 FPH) WOB 8-10 RPM 135 GPM 855
	23:30 - 00:00	0.50	RIG	1	RIG SERVICE
	00:00 - 02:00	2.00	DRL	1	DRLG F/842 TO 1033 (191 FT 95.5 FPH)
	02:00 - 02:30	0.50	SUR	1	CIR & SURVEY @939 INC 0 AZ 175.5 TVD 0
10/2/2008	02:30 - 06:00	3.50	DRL	1	DRLG F/1033 TO 1278 (245 FT 70 FPH)
	06:00 - 07:00	1.00	DRL	1	DRLG F/1278 TO 1315
	07:00 - 07:30	0.50	RIG	2	WORK ON MUD PUMP, LINER WASHER
	07:30 - 14:00	6.50	DRL	1	DRLG F/1315 TO 1587 (272 FT 41.84 FPH) WOB 10-15 RPM 135-155 GPM 855
	14:00 - 14:30	0.50	SUR	1	CIR & SURVEY @1493 .2 DEG AZ 72.8 TVD 1493
10/3/2008	14:30 - 01:00	10.50	DRL	1	DRLG F/1587 TO 2098 (509 FT 48.47 FPH) WOB 10-15 RPM 135-155 GPM 855
	01:00 - 01:30	0.50	SUR	1	CIR & SURVEY @2002 .3 DEG AZ 320.1 TVD 2002
	01:30 - 06:00	4.50	DRL	1	DRLG F/2098 TO 2318 (222 FT 49.33 FPH) WOB 10-15 RPM 145 GPM 855
	06:00 - 17:30	11.50	DRL	1	DRLG F/2318 TO 2640 (322 FT 28 FPH)
	17:30 - 18:00	0.50	SUR	1	FLOW CHECK & DROP SURVEY
10/4/2008	18:00 - 21:00	3.00	TRP	10	TOH F/BIT & MOTOR
	21:00 - 23:30	2.50	TRP	1	CHANGE OUT BIT & MOTOR
	23:30 - 01:00	1.50	TRP	2	TIH
	01:00 - 01:30	0.50	REAM	1	WASH & REAM 60 FT TO BTM
	01:30 - 06:00	4.50	DRL	1	DRLG F/2640 TO
10/5/2008	06:00 - 11:30	5.50	DRL	1	DRLG F/2764 TO 2940 (176 FT 32 FPH) WOB 10-12 RPM 154 GPM 855
	11:30 - 12:00	0.50	RIG	1	RIG SERVICE
	12:00 - 18:30	6.50	DRL	1	DRLG F/2940 TO 3131 (191 FT 29.38 FPH) WOB 12 RPM 154 GPM 855
	18:30 - 19:00	0.50	SUR	1	CIR & SURVEY @3047 .1 DEG AZ 171.4 TVD 3046.99
	19:00 - 06:00	11.00	DRL	1	DRLG F/3131 TO 3544 (413 FT 37.54 FPH) WOB 12 RPM 154 GPM 855
10/6/2008	06:00 - 06:30	0.50	OTH		FLOW CHECK, WELL FLOWING 25 BBL HR, RAISE MUD WT TO 9.0
	06:30 - 08:30	2.00	DRL	1	DRLG F/3544 TO 3608 (64 FT 32 FPH)
	08:30 - 09:00	0.50	CIRC	1	CIR F/SURVEY, WELL FLOWING 12 BBL HR
	09:00 - 09:30	0.50	SUR	1	SURVEY @3524 .3 DEG AZ 202.9 TVD 2523.98
	09:30 - 13:00	3.50	DRL	1	DRLG F/3608 TO 3703 (95 FT 27.14 FPH) WOB 12 RPM 154 GPM 855
10/7/2008	13:00 - 13:30	0.50	RIG	1	RIG SERVICE
	13:30 - 06:00	16.50	DRL	1	DRLG F/3703 TO 4053 (350 FT 21.21 FPH) WOB 18-22 GPM 855
	06:00 - 07:30	1.50	DRL	1	DRLG F/4053 TO 4081 (28 FT 18.86 FPH) WOB 18-22 RPM 154 GPM 855
	07:30 - 08:00	0.50	SUR	1	FLOW CHECK & DROP SURVEY
	08:00 - 10:30	2.50	TRP	10	TOH F/BIT
10/8/2008	10:30 - 11:30	1.00	TRP	1	CHANGE OUT BIT, TIGHT CONNECTION
	11:30 - 14:00	2.50	TRP	2	TIH
	14:00 - 14:30	0.50	REAM	1	WASH & REAM 92 FT TO BTM, NO FILL
	14:30 - 15:00	0.50	RIG	1	RIG SERVICE
	15:00 - 17:00	2.00	RIG	2	CHANGE OUT 2 SWABS IN #2 PUMP
10/9/2008	17:00 - 06:00	13.00	DRL	1	DRLG F/4081 TO 4347 WOB 10-12, RPM 154, GPM 855
	06:00 - 07:00	1.00	DRL	1	DRLG F/ 4347 TO 4370
	07:00 - 07:30	0.50	RIG	1	RIG SERVICE
	07:30 - 17:00	9.50	DRL	1	DRLG F/4370 TO 4655 WOB 12, DHRPM 154, GPM 855
	17:00 - 18:00	1.00	SUR	1	CIRCULATE, SURVEY @ 4671' 1. INC 177.3 AZM
10/10/2008	18:00 - 06:00	12.00	DRL	1	DRILL F/4655 TO 4909 WOB 10-12, DHRPM 154, GPM 855
	06:00 - 07:30	1.50	RIG	2	CHANGE OUT SWAB ON #2 PUMP
	07:30 - 14:00	6.50	DRL	1	DRLG F/4909 TO 4982 (83 FT 11.85 FPH) WOB 14-16 RPM 154 GPM 885
	14:00 - 14:30	0.50	OTH		FLOW CHECK & PUMP SLUG
	14:30 - 18:00	3.50	TRP	10	TOH F/BIT
10/11/2008	18:00 - 21:30	3.50	TRP	10	PICK UP NEW MOTOR, TRIP IN
	21:30 - 22:00	0.50	REAM	1	WASH AND REAM LAST STD TO BOTTOM (NO FILL)
	22:00 - 06:00	8.00	DRL	1	DRILL F/4982 TO 5084 WOB 16-17, GPM 855, DHRPM 144

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
10/9/2008	06:00 - 11:00	5.00	DRL	1	DRILLING F/5084 T/5122 38' 7.6'/HR
	11:00 - 11:30	0.50	RIG	1	RIG SERVICE
	11:30 - 03:00	15.50	DRL	1	DRILLING F/5122 T/5224 102' 6.6'/HR
	03:00 - 04:00	1.00	CIRC	1	CIRCULATE, BUILD AND PUMP SLUG
	04:00 - 04:30	0.50	TRP	12	TRIP OUT OF HOLE FOR MOTOR AND BIT
	04:30 - 05:30	1.00	OTH		WORK TIGHT HOLE F/5015' T/4930'
10/10/2008	05:30 - 06:00	0.50	TRP	12	TRIP OUT OF HOLE
	06:00 - 09:00	3.00	TRP	12	TRIP OUT OF HOLE SLM = 5222' NO CORRECTION
	09:00 - 09:30	0.50	TRP	10	CHANGE OUT BIT AND LAY DOWN MOTOR
	09:30 - 12:30	3.00	TRP	10	TRIP IN HOLE WITH BIT #5, TAGGED UP @ 5160'
	12:30 - 15:30	3.00	FISH	3	COULD NOT CIRCULATE OR PULL FREE, WORKING TIGHT HOLE(JARRING ) F/5160 T/4908'
	15:30 - 16:00	0.50	OTH		FIX PIPE HANDLER SENSOR, INSPECT DERRICK
10/11/2008	16:00 - 17:30	1.50	REAM	1	REAM F/4908 T/5224
	17:30 - 00:30	7.00	DRL	1	DRILLING F/5224 T/5315 91' 12.2'/HR
					WOB 15 RPM 80 SPM 180 GPM 750
	00:30 - 01:00	0.50	CIRC	5	CIRCULATE BOTTOMS UP SAMPLE
	01:00 - 02:00	1.00	TRP	14	SHORT TRIP 8 STANDS (4574')
	02:00 - 03:00	1.00	CIRC	1	CIRCULATE AND CONDITION HOLE FOR CASING, PUMP HIGH VIS SWEEP
10/12/2008	03:00 - 03:30	0.50	SUR	1	DROP SURVEY, PUMP SLUG
	03:30 - 06:00	2.50	TRP	2	TRIP OUT OF HOLE FOR CASING
	06:00 - 08:00	2.00	TRP	2	TRIP OUT OF HOLE FOR CASING, LAY DOWN 8" BHA, PULL SURVEY
	08:00 - 09:00	1.00	OTH		PULL WEARBUSHING
	09:00 - 11:30	2.50	CSG	1	HOLD SAFETY MEETING, RIG UP CASING CREW AND FILL UP TOOL
	11:30 - 13:30	2.00	CSG	2	RUN 9 5/8" CASING
10/13/2008	13:30 - 16:30	3.00	RIG	2	FIX DRAG CHAIN ON CAT WALK
	16:30 - 23:30	7.00	CSG	2	RUN 9 5/8" CASING
	23:30 - 00:30	1.00	CSG	2	DRAIN BOP AND LAND CASING
					CASING LANDED @ 5285'
	00:30 - 01:30	1.00	CSG	1	RIG DOWN CASING CREW
	01:30 - 05:00	3.50	CIRC	1	CIRCULATE AND CONDITION, RIG UP CEMENTERS, HOLD SAFETY MEETING
10/13/2008	05:00 - 06:00	1.00	CMT	2	PUMP CEMENT
	06:00 - 10:30	4.50	CMT	2	PUMP FOAM CEMENT, LEAD 1 / PLUG BUMPED AND FLOATS HELD, RETURNED 150 BBLs OF CEMENT TO SURFACE. FULL RETURNS THROUGHT JOB.
	10:30 - 11:00	0.50	CMT	1	RIG DOWN CEMENTERS
	11:00 - 13:00	2.00	OTH		BACK OUT LANDING JOINT, RIG DOWN CASING ELEVATORS AND CLEAR FLOOR
	13:00 - 17:30	4.50	BOP	1	NIPPLE DOWN 13 5/8" BOP
	17:30 - 20:00	2.50	BOP	1	NIPPLE UP B SECTION AND TEST TO 5000 PSI
10/13/2008	20:00 - 01:30	5.50	BOP	1	NIPPLE UP 11" BOP
	01:30 - 03:30	2.00	BOP	1	CHANGE OUT PIPE RAMS,
	03:30 - 05:00	1.50	OTH		RIG UP TOP DRIVE TO TEST
	05:00 - 06:00	1.00	BOP	2	TEST BOP TO 10,000 PSI
	06:00 - 09:30	3.50	BOP	2	TEST BOP-UPPER AND LOWER PIPE AND BLIND RAMS, HCR AND ALL CHOKE VALVES 10,000PSI HIGH 250 LOW. ANNULAR 5000 HIGH 250 LOW, FUNTION TEST KOOMEY
	09:30 - 10:00	0.50	EQT	1	PRESSURE TEST CASING TO 1500 PSI FOR 30 MIN.
10/13/2008	10:00 - 11:00	1.00	OTH		SET WEAR BUSHING AND CHANGE OUT CORRISION RING
	11:00 - 15:00	4.00	TRP	2	PICK UP MOTOR AND MONEL AND TRIP IN HOLE WITH BIT #6
	15:00 - 16:00	1.00	RIG	6	CUT DRILLING LINE
	16:00 - 17:00	1.00	OTH		INSTALL ROTATING RUBBER AND CENTER TOP DRIVE TRACK
	17:00 - 18:00	1.00	DRL	4	DRILLING CEMENT AND 10' OF NEW HOLE F/ 5150 T/5323

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
10/13/2008	18:00 - 18:30	0.50	EQT	2	FIRT TEST TO 13.4 EQMW (1080 PSI)
	18:30 - 05:00	10.50	DRL	1	DRILLING F/5323 T/5828 506' 48.1'/HR WOB 22/25 RPM 40/50 GPM 420 DHRPM 145
10/14/2008	05:00 - 06:00	1.00	SUR	1	SURVEY @ 5748****1.4 DEG***164.9 AZ
	06:00 - 21:00	15.00	DRL	1	DRILLING F/5828 T/6286 458' 30.5'/HR WOB 25 RPM 40 GPM 420 DHRPM 145
10/15/2008	21:00 - 21:30	0.50	RIG	1	RIG SERVICE
	21:30 - 22:30	1.00	RIG	2	TROUBLE SHOOT TOP DRIVE
	22:30 - 23:00	0.50	SUR	1	DROP SURVEY AND PUMP SLUG
	23:00 - 23:30	0.50	TRP	10	TRIP OUT OF HOLE WITH BIT #6 TO CASING SHOE
	23:30 - 00:00	0.50	RIG	2	TROUBLE SHOOT TOP DRIVE, NO VOLTAGE FROM TOP DRIVE TO J-BOX (ELECTRICIAN ON THE WAY FROM GRAND JUNCTION)
	00:00 - 03:00	3.00	TRP	10	FINISH TRIP OUT OF HOLE & CHANGE OUT BITS
	03:00 - 06:00	3.00	TRP	10	TRIP IN HOLE WITH BIT # 7 TO SHOE
	06:00 - 06:30	0.50	RIG	1	RIG SERVICE
	06:30 - 09:00	2.50	RIG	2	TROUBLE SHOOT TOP DRIVE BLOWER
	09:00 - 09:30	0.50	TRP	10	TRIP IN HOLE TO 5800'
10/16/2008	09:30 - 11:00	1.50	RIG	2	TROUBLE SHOOT TOP DRIVE BLOWER
	11:00 - 12:00	1.00	REAM	1	WASH AND REAM F/5939 T/6286-12' OF FILL
	12:00 - 22:30	10.50	DRL	1	DRILLING F/6286 T/7064 778 FT 74'/HR
	22:30 - 23:30	1.00	SUR	1	SURVEY @ 6985' = 1.5 INC & 151.4 AZ
	23:30 - 02:00	2.50	DRL	1	DRILLING F/7064 T/7270 206 FT 82.4'/HR
	02:00 - 05:00	3.00	CIRC	2	LOST CIRCULATION, SPOT LCM PILLS ON BOTTOM
	05:00 - 06:00	1.00	DRL	1	DRILLING F/7270 T/7285 DRILLING LIGHT ON BIT WITH SLOW PUMP
	06:00 - 14:00	8.00	DRL	1	DRILLING F/7285 T/7544 249' 31.1'/HR WOB 18 DHRPM 140 GPM 398
	14:00 - 14:30	0.50	RIG	1	RIG SERVICE
	14:30 - 20:30	6.00	DRL	1	DRILLING F/7544 T/7760 216' 36'/HR
10/17/2008	20:30 - 21:00	0.50	CIRC	2	PUMP 70 BBL LCM PILL, REGAIN PARTIAL CIRCULATION
	21:00 - 22:00	1.00	DRL	1	DRILL F/ 7760' T/ 7775 WITH LOWER PUMP & BIT WT, REGAIN FULL CIRCULATION 15' 15'/HR
	22:00 - 06:00	8.00	DRL	1	DRILLING F/ 7775 T/8010 235' 29.4'/HR WOB 22/25 RPM 145 GPM 398
	06:00 - 06:30	0.50	DRL	1	DRILLING F/8010 T/8021 11' 22'/HR
	06:30 - 07:30	1.00	SUR	1	SURVEY @ 7941****2.6 DEG***136.4 AZ
	07:30 - 14:00	6.50	DRL	1	DRILLING F/8021 T/8212 191' 29.4'/HR WOB 25 DHRPM 150 GPM 398
	14:00 - 14:30	0.50	RIG	1	RIG SERVICE
	14:30 - 00:00	9.50	DRL	1	DRILLING F/8212 T/8498 286' 30.1'/HR
	00:00 - 01:00	1.00	SUR	1	SURVEY @ 8415****2.1 DEG***150.5 AZ
	01:00 - 06:00	5.00	DRL	1	DRILLING F/8498 T/8625 127' 25.4'/HR WOB 25 DHRPM 155 GPM 398
10/18/2008	06:00 - 15:00	9.00	DRL	1	DRILLING F/8625 T/8975 350' 38.8'/HR WOB 25 DHRPM 160 GPM 398
	15:00 - 15:30	0.50	RIG	1	RIG SERVICE
	15:30 - 03:00	11.50	DRL	1	DRILLING F/8975 T/9390 415' 36'/HR
	03:00 - 04:00	1.00	SUR	1	CIRCULATE, DROP SURVEY & PUMP DRY SLUG
10/19/2008	04:00 - 06:00	2.00	TRP	10	TRIP OUT OF HOLE W/ BIT # 7
	06:00 - 07:30	1.50	TRP	10	TRIP OUT OF HOLE FOR BIT #7
	07:30 - 14:30	7.00	TRP	10	INSPECT BHA, CHANGE OUT JARSAND L/D 2 JTS OF HWDP, RETRIVED SURVEY TOOL-MISS RUN
	14:30 - 15:00	0.50	TRP	1	CHANGE OUT BIT AND MOTOR
	15:00 - 21:00	6.00	TRP	10	TRIP IN HOLE WITH BIT #8 (WASH & REAM TIGHT SPOT @ 5728' TO 5813')

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14-8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
10/19/2008	21:00 - 21:30	0.50	REAM	1	WASH & REAM F/9348' TO 9390' (PRECAUTIONARY)
	21:30 - 22:30	1.00	OTH		CLEAN BALLED BIT & START BIT DRILLING
	22:30 - 06:00	7.50	DRL	1	DRILLING FROM 9390' T/9620 230' 30.7'/HR WOB 22/25 DHRPM 130 GPM 398
10/20/2008	06:00 - 13:00	7.00	DRL	1	DRILLING F/9620 T/9928 308' 44.0'/HR WOB 22/24 DHRPM 130 GPM 398
	13:00 - 14:00	1.00	SUR	1	SURVEY @ 9848***3.0 DEG***150.6 AZ
	14:00 - 16:00	2.00	DRL	1	DRILLING F/9928 T/10024 96' 48'/HR
	16:00 - 16:30	0.50	RIG	1	RIG SERVICE
	16:30 - 18:00	1.50	DRL	1	DRILLING F/10024 T/10056 32' 21.3'/HR
	18:00 - 19:30	1.50	CIRC	2	LOST CIRCULATION, SPOT LCM PILL, PULL 1 STAND, LET HEAL LOST 220 BBLs
	19:30 - 06:00	10.50	DRL	1	DRILLING F/ 10056 T/10335 279' 26.6'/HR WOB 25/28 DHRPM 145 GPM 398
10/21/2008	06:00 - 08:30	2.50	DRL	1	DRILLING F/10335 T/10405 70' 28'/HR
	08:30 - 09:30	1.00	SUR	1	SURVEY @ 10325***2.8 DEG***155.4 AZ
	09:30 - 17:30	8.00	DRL	1	DRILLING F/10405 T/10596 191' 23.9'/HR WOB 25/28 DHRPM 145 GPM 398
	17:30 - 18:00	0.50	RIG	1	RIG SERVICE
	18:00 - 03:00	9.00	DRL	1	DRILLING F/10596 T/10688 WOB 24/28, DHRPM 150, GPM 398
10/22/2008	03:00 - 06:00	3.00	TRP	10	PUMP DRY PIPE PILL, TRIP OUT BIT #8
	06:00 - 09:00	3.00	TRP	10	TRIP OUT OF HOLE WITH BIT #8
	09:00 - 09:30	0.50	TRP	1	CHANGE OUT MOTOR AND BIT
	09:30 - 15:30	6.00	TRP	10	TRIP IN HOLE WITH BIT #9, FILL EVERY 3000'
	15:30 - 16:00	0.50	REAM	1	WASH AND REAM F/10450 TO BOTTOM, 240'
10/23/2008	16:00 - 06:00	14.00	DRL	1	DRILLING F/10688 T/10965 WOB 16/18, DHRPM 90, 418 GPM
	06:00 - 12:00	6.00	DRL	1	DRLG F/10965 TO 11070 (105 FT 17.5 FPH) WOB 16/20 RPM 94 GPM 418
	12:00 - 12:30	0.50	RIG	1	RIG SERVICE
	12:30 - 03:00	14.50	DRL	1	DRLG F/11070 TO 11330 (260 FT 17.93 FPH) WOB 16/20 RPM 94 GPM 418
	03:00 - 03:30	0.50	RIG	4	CHANGE OUT ROTATING RUBBER
10/24/2008	03:30 - 06:00	2.50	DRL	1	DRLG F/11330 TO 11375, LOSSES @11349, LOST 70 BBL GPM 377
	06:00 - 10:00	4.00	DRL	1	DRLG F/11375 TO 11451 (76 FT 19 FPH) WOB 16/20 RPM 90 GPM 377
	10:00 - 10:30	0.50	RIG	1	RIG SERVICE
	10:30 - 13:00	2.50	DRL	1	DRLG F/11451 TO 11473 (22 FT 8.8 FPH)
	13:00 - 13:30	0.50	SUR	1	FLOW CHECK & DROP SURVEY
	13:30 - 15:30	2.00	CIRC	1	CIR BTM'S UP & SPOT 100 BBL ECD PILL
	15:30 - 20:30	5.00	TRP	10	TOH F/BIT
	20:30 - 23:30	3.00	TRP	2	CHANGE OUT BIT & TIH W/BIT#10 TO SHOE
	23:30 - 00:30	1.00	RIG	6	SLIP & CUT DRLG LINE
	00:30 - 01:00	0.50	RIG	1	RIG SERVICE
	01:00 - 01:30	0.50	RIG	4	INSTALL ROTATING RUBBER
	01:30 - 02:30	1.00	TRP	2	TIH TO 7240
	02:30 - 03:00	0.50	RIG	6	DRLG LINE FOULED, HANG BLOCKS & RESTRING
	03:00 - 04:00	1.00	TRP	2	TIH TO 8929
	04:00 - 05:00	1.00	RIG	2	SLIP & CUT DRLG LINE,
10/25/2008	05:00 - 06:00	1.00	TRP	2	TIH @11000 FT
	06:00 - 06:30	0.50	TRP	2	TIH W/BIT #10
	06:30 - 07:00	0.50	REAM	1	WASH & REAM F/11050 TO 11473
	07:00 - 10:30	3.50	DRL	1	DRLG F/11473 TO 11547 (74 FT 21.14 FPH) WOB 12-14 RPM 90 GPM 377
	10:30 - 11:00	0.50	RIG	1	RIG SERVICE
10/26/2008	11:00 - 06:00	19.00	DRL	1	DRLG F/11547 TO 11738 (191 FT 10.05 FPH) WOB 16-21 RPM 90-114 GPM 418
	06:00 - 13:00	7.00	DRL	1	DRLG F/11738 TO 11833 (95 FT 13.57 FPH) WOB 20-25 RPM 109 GPM 377
	13:00 - 13:30	0.50	RIG	1	RIG SERVICE

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
10/26/2008	13:30 - 19:30	6.00	DRL	1	DRLG F/11833 TO 11923 (90 FT 15.0 FPH) WOB 20-25 RPM 109 GPM 377
	19:30 - 06:00	10.50	WCL	1	CIR GAS OUT & RAISE MUD WT IN STAGES TO 10.4 PPG SICP 1300 PSI, UNABLE TO ESTABLISH SIDPP, TOTAL LOSSES 320 BBL, PUMPING LCM SWEEPS, 45 TO 50 FT FLARE, SICP @05:00 400 PSI
10/27/2008	06:00 - 07:30	1.50	WCL	1	CIR GAS OUT & RAISE MUD WT TO 10.4 PPG
	07:30 - 09:30	2.00	DRL	1	DRLG F/11923 TO 11943
	09:30 - 11:00	1.50	WCL	1	CIR GAS OUT & RAISE MUD WT TO 10.5 PPG
	11:00 - 11:30	0.50	DRL	1	DRLG F/11943 TO 11945
	11:30 - 15:30	4.00	CIRC	2	LOST RETURNS, ADD LCM TO SYSTEM TO 10%, REGAINED RETURNS, CIR THROUGH CHOKE
	15:30 - 23:00	7.50	DRL	1	DRLG F/11945 TO 11993 (48 FT 6.4 FPH) WOB 25 RPM 109 GMP 377
	23:00 - 00:30	1.50	CIRC	1	CIR BTMS & SPOT 100 BBL 12 PPG ECD PILL, TOTAL LOSSES 250 BBL
	00:30 - 03:30	3.00	TRP	2	TOH TO 6000 FT
10/28/2008	03:30 - 04:30	1.00	CIRC	1	FLOW CHECK, WELL FLOWING, CIR BTMS UP @6000, FLOW CHECK, FLOWING 10 BBL HR
	04:30 - 06:00	1.50			CIR, BUILD 100 BBL ECD PILL & SPOT SAME
	06:00 - 07:00	1.00	CIRC	1	CIRCULATE AND CONDITION, SPOT 100 BBL ECD PILL 1.5 LB/GAL
	07:00 - 07:30	0.50	TRP	10	POOH F/ 6000 TO 4400
	07:30 - 08:30	1.00	TRP	15	WELL FLOWING 10 BBL/ HR, TIH TO 5550
	08:30 - 10:00	1.50	CIRC	1	WELL FLOWING SHUT WELL IN CIRCULATE BTM UP
	10:00 - 11:00	1.00	TRP	15	TIH F/ 5550 TO 7140
	11:00 - 12:30	1.50	CIRC	1	WELL FLOWING SHUT IN AND CIRC BTM UP
	12:30 - 13:30	1.00	TRP	15	TIH F/ 7140 TO 9200
	13:30 - 15:00	1.50	CIRC	1	WELL FLOWING CIRC BTM UP
	15:00 - 16:00	1.00	TRP	15	TIH F/9200 TO 11620
	16:00 - 17:00	1.00	TRP	15	WORK TIGHT HOLE F/11535 TO 11620
	17:00 - 19:00	2.00	CIRC	1	SHUT IN WELL CIRC BTM UP
	19:00 - 21:00	2.00	REAM	1	WASH AND REAM F/ 11535 TO 11993 20 FT OF FILL
	21:00 - 23:30	2.50	CIRC	1	CIRCULATE BTMS UP, CONDITION MUD
	23:30 - 00:00	0.50	CIRC	1	SPOT 150 BBL ECD PILL 12.5 PPG DISPLACE W/ 117 BBLs
	00:00 - 01:30	1.50	TRP	10	POOH F/11993 TO 9500
	01:30 - 02:30	1.00	CIRC	1	CIRCULATE BTMS UP, SPOT DRY PILL, FLOW CHECK
10/29/2008	02:30 - 06:00	3.50	TRP	10	POOH FOR BIT CHANGE
	06:00 - 08:00	2.00	TRP	10	TOH F/BIT F/2300
	08:00 - 09:00	1.00	TRP	1	LD MUD MOTOR, PICK UP BIT SUB NEW BIT
	09:00 - 13:30	4.50	TRP	2	TIH TO 9440 FILL PIPE @ 1580, 5200, 8300
	13:30 - 14:30	1.00	TRP	2	TIH F/ 9440 TO 10840, HIT TIGHT SPOT @ 9440 REAM TO 9450
	14:30 - 15:00	0.50	CIRC	1	CIRCULATE OUT ECD PILL
	15:00 - 17:30	2.50	CIRC	1	SHUT IN WELL AND CIRCULATE OUT GAS THROUGH CHOKE 35 FOOT FLARE
	17:30 - 18:00	0.50	REAM	1	WASH AND REAM FROM 11892 TO 11993
10/30/2008	18:00 - 19:00	1.00	CIRC	1	SHUT IN WELL AND CIRCULATE OUT GAS 35 FT FLARE
	19:00 - 06:00	11.00	DRL	1	DRILL F/ 11993 TO 12160
	06:00 - 11:30	5.50	DRL	1	DRLG F/12160 TO 12274 (114 FT 20.72 FPH) WOB 12-15 RPM 95 GPM 398
	11:30 - 12:00	0.50	RIG	1	RIG SERVICE
	12:00 - 15:00	3.00	DRL	1	DRLG F/12274 TO 12362 (88 FT 29.33 FPH) WOB 12-15 RPM 95 GPM 398
	15:00 - 19:00	4.00	CIRC	1	CIR BTMS UP F/SHORT TRIP, RAISE MUD WT TO 11 PPG
	19:00 - 20:00	1.00	CIRC	2	LOST RETURNS, SPOT 50 BBL 25% LCM PILL ON BOTTOM @ 12362 COVERING 990 FEET OF OPEN HOLE
	20:00 - 20:30	0.50	TRP	2	TOOH SIX STANDS TO 11734
	20:30 - 22:30	2.00	CIRC	1	LOWER MUD WEIGHT TO 10.8 SPOT 80 BBL 25 % LCM @ 11734 COVERING 1584 FEET OF OPEN HOLE
	22:30 - 05:00	6.50	CIRC	6	BUILD 270 BBL VOLUME MUD WEIGHT 10.8 VISC 42
	05:00 - 06:00	1.00	CIRC	1	CIRCULATE OUT GAS THROUGH CHOKE

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
10/31/2008	06:00 - 09:30	3.50	CIRC	1	CIR GAS OUT & LOWER MUD WT TO 10.8 PPG, BUILD MUD VOLUME
	09:30 - 10:30	1.00	TRP	2	TIH F/11700 TO 12362, FLOAT NOT HOLDING
	10:30 - 14:30	4.00	CIRC	1	CIR BTMS UP & RAISE MUD WT TO 10.9 PPG
	14:30 - 15:00	0.50	CIRC	1	SPOT 150 BBL ECD PILL 2 LB OVER
	15:00 - 16:30	1.50	TRP	2	TOOH F/ 12362 TO 9800
	16:30 - 17:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP
	17:30 - 00:30	7.00	TRP	2	SPOT DRY PILL, TOOH F/ 9800 FOR LOGS FLOW CHECK @ 7640 NO FLOW
					FLOW CHECK @ SHOE NO FLOW. LAY DOWN MONNEL AND BIT
	00:30 - 01:30	1.00	LOG	1	RIG UP LOGGING ADAPTER, HELD SAFETY MEETING, RIG UP LOGGERS
	01:30 - 04:30	3.00	LOG	1	RUN WIRELINE LOGS, WELL FLOWING, STOP LOGGING GET WIRELINE OUT OF HOLE
11/1/2008	04:30 - 06:00	1.50	WCL	1	RETRIEVED WIRELINE TOOLS SHUT WELL, TOTAL GAIN 73 BBL, MONITOR CASING PRESSURE, R/D LOGGERS, SICP @ 05:53 410 PSI
	06:00 - 07:30	1.50	WCL	1	MONITOR SHUT IN CASING PRESSURE, HOLD SAFETY MEETING ON WELL KILLING PROCEDURE
	07:30 - 11:00	3.50	WCL	1	PUMP THROUGH KILL LINE, LET MUD SETTLE, BLEED OFF GAS THROUGH CHOKE
	11:00 - 13:00	2.00	TRP	2	TIH TO 4275, FILL PIPE @ 1358, 2800
	13:00 - 13:30	0.50	CIRC	1	FILL PIPE @ 4275 CIRCULATE BTMS UP
	13:30 - 14:30	1.00	TRP	2	TIH TO 5850
	14:30 - 15:30	1.00	CIRC	1	SHUT IN WELL AND CIRCULATE OUT GAS THROUGH CHOKE
	15:30 - 16:30	1.00	TRP	2	TIH F/ 6000 TO 8781, FILL PIPE @ 7350
	16:30 - 18:00	1.50	CIRC	1	SHUT IN WELL CIRCULATE OUT GAS THROUGH CHOKE
	18:00 - 18:30	0.50	TRP	2	TIH F/ 8781 T/ 9483
11/2/2008	18:30 - 19:30	1.00	REAM	1	WASH AND REAM F/ 9483 T/ 9674
	19:30 - 21:00	1.50	CIRC	1	SHUT IN WELL CIRCULATE OUT GAS THROUGH CHOKE
	21:00 - 22:00	1.00	TRP	2	TIH F/ 9674 T/ 10437
	22:00 - 22:30	0.50	REAM	1	WASH AND REAM F/ 10437 T/ 10532
	22:30 - 00:30	2.00	CIRC	1	SHUT WELL IN CIRCULATE OUT GAS THROUGH CHOKE
	00:30 - 01:30	1.00	TRP	2	TIH F/ 10532 T/ 11390
	01:30 - 03:00	1.50	CIRC	1	SHUT IN WELL CIRCULATE OUT GAS AND ECD PILL THROUGH CHOKE
	03:00 - 04:00	1.00	TRP	2	TIH F/ 11390 T/ 12344 30 FT OF FILL
	04:00 - 04:30	0.50	REAM	1	WASH AND REAM F/ 12344 TO 12362
	04:30 - 06:00	1.50	CIRC	1	CIRCULATE BTMS UP AT 12362
11/3/2008	06:00 - 11:00	5.00	CIRC	1	CIRCULATE AND BUILD MUD VOLUME
	11:00 - 12:00	1.00	TRP	14	SHORT TRIP TEN STANDS
	12:00 - 16:00	4.00	CIRC	1	CIRCULATE TWO BOTTOMS UP, PUMP 200 BBL ECD PILL 2 PPG OVER
	16:00 - 17:30	1.50	TRP	2	TOOH TO 9200
	17:30 - 20:00	2.50	CIRC	1	CIRCULATE TWO BOTTOMS UP, PUMP 30 BBL DRY PILL
	20:00 - 01:00	5.00	TRP	2	TOOH F/ 9200 T/ SURFACE
	01:00 - 01:30	0.50	TRP	2	PULL WEAR BUSHING
	01:30 - 05:00	3.50	CSG	1	SAFETY MEETING, RIG UP CASING CREW
	05:00 - 06:00	1.00	CSG	2	RUN 7 INCH 29# CASING
	06:00 - 12:00	6.00	CSG	2	RUN 7 IN CASING TO 4900, BREAK CIRCULATION EVERY 10 JOINTS
11/3/2008	12:00 - 13:00	1.00	CIRC	1	CIRCULATE BOTTOMS UP
	13:00 - 15:30	2.50	CSG	2	RUN 7 IN CASING F/ 4900 T/ 6750 BREAK CIRCULATION EVERY 10 JOINTS
	15:30 - 16:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP
	16:30 - 17:00	0.50	CSG	2	RUN 7 IN CASING F/ 6750 T/ 7330
	17:00 - 17:30	0.50	RIG	1	RIG SERVICE
	17:30 - 18:00	0.50	CIRC	1	REPAIR PRAGMA UNIT, CIRCULATE
	18:00 - 19:00	1.00	CSG	2	RUN CASING F/ 7330 T/ 8278 BREAK CIRCULATION EVERY 10 JOINTS
	19:00 - 20:30	1.50	CIRC	1	CIRCULATE BTMS UP
11/3/2008	20:30 - 22:00	1.50	CSG	2	RUN CASING F/ 8278 T/ 9347

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
11/3/2008	22:00 - 23:00	1.00	CIRC	1	SHUT WELL IN CIRCULATE BTMS UP
	23:00 - 00:00	1.00	CSG	2	RUN CASING F/ 8347 T/ 10013
	00:00 - 01:30	1.50	CIRC	1	CIRCULATE BTMS UP
	01:30 - 02:30	1.00	CSG	2	RUN CASING F/ 10013 T/ 10800
	02:30 - 04:00	1.50	CIRC	1	CIRCULATE BTMS UP
	04:00 - 05:00	1.00	CSG	2	RUN CASING F/ 10800 T/ 11600
	05:00 - 06:00	1.00	CIRC	1	CIRCULATE BTMS UP
11/4/2008	06:00 - 08:00	2.00	CIRC	1	CIRCULATE OUT ECD PILL AND GAS
	08:00 - 09:00	1.00	CSG	2	RUN 7 INCH CASING F/ 11624 T/ 12190
	09:00 - 10:30	1.50	REAM	2	WASH DOWN CASING F/ 12190 T/ 12309
	10:30 - 12:00	1.50	CIRC	1	SHUT IN WELL CIRCULATE OUT ECD PILL AND GAS
	12:00 - 12:30	0.50	CSG	2	RUN AND LAND 7 INCH CASING @ 12341
	12:30 - 14:30	2.00	CIRC	1	CIRCULATE OUT ECD PILL AND GAS
	14:30 - 15:00	0.50	CSG	1	RIG DOWN FILL TOOL
	15:00 - 16:30	1.50	CMT	1	SAFETY MEETING, RIG UP HALIBURTON CEMENT CREW, PRESSURE TEST CEMENT LINES TO 6000 PSI PRESSURE TEST NITROGEN LINES TO 8000 PSI
	16:30 - 22:00	5.50	CMT	2	CEMENT INTERMEDIATE #2 BUMP PLUG @ 1845, DISPLACE W/ 460 BBL OIL BASE MUD, CASING PRESSURE TEST @ 2700 PSI FOR 30 MINUTES, PUMP TOP JOB TO 2100 FEET
	22:00 - 22:30	0.50	CMT	1	RIG DOWN CEMENTERS
11/5/2008	22:30 - 00:00	1.50	CSG	1	RIG DOWN CASING ELEVATORS AND SLIPS
	00:00 - 02:30	2.50	BOP	1	NIPPLE DOWN BPOE
	02:30 - 04:00	1.50	BOP	1	INSTALL "C" SECTION TEST TO 7000 5 MINUTES
	04:00 - 06:00	2.00	BOP	1	NIPPLE UP BPOE
	06:00 - 13:00	7.00	BOP	1	NIPPLE UP ROTATE HEAD, CHARGE ACCUMULATOR BOTTLES, RIG UP CHOKE LINE, KILL LINE, DRIP PANS, FLOW LINE, RIG UP TD FOR TESTING
	13:00 - 14:00	1.00	BOP	1	RIG UP TESTERS
	14:00 - 00:00	10.00	BOP	2	TEST IBOP, MAN LWCV, TIW HANDLING VALVE, LOWER PIPE RAMS, UPPER PIPE RAMS, BLIND RAMS TO 10000 PSI 10 MINUTE 250 PSI 5 MINUTE, MUD LINES 3500 PSI 10 MINUTE
	00:00 - 01:00	1.00	BOP	1	NIPPLE UP ROTARY HEAD BEARING PACK
11/6/2008	01:00 - 06:00	5.00	TRP	3	LAY DOWN 4.5 DRILL PIPE
	06:00 - 15:30	9.50	TRP	3	LAY DOWN 4 1/2" DRILL PIPE IN THE MOUSE HOLE
	15:30 - 17:00	1.50	OTH		STRAP BHA AND RIG UP FLOOR FOR 4" DRILL PIPE
	17:00 - 19:30	2.50	TRP	3	PICK UP 4" BHA
	19:30 - 20:30	1.00	RIG	6	CUT DRILL LINE 162'
	20:30 - 21:30	1.00	OTH		CENTER TOP DRIVE & STRAP 4" DRILL PIPE
	21:30 - 23:00	1.50	TRP	3	TIH PICKING UP DRILL PIPE TO 2500' (PRESSURE INCREASE 500 PSI WHILE FILLING PIPE)
	23:00 - 02:00	3.00	TRP	2	MIX & PUMP DRY SLUG TOOH CHECK PLUGGED JETS
11/7/2008	02:00 - 03:30	1.50	OTH		CHANGE OUT MOTORS & SURFACE TEST
	03:30 - 06:00	2.50	TRP	2	TIH TO 2500', PICK UP DRILL PIPE
	06:00 - 16:00	10.00	TRP	3	PICK UP 4" DRILL PIPE
	16:00 - 18:00	2.00	DRL	4	DRILL CEMENT AND FLOAT EQUIPMENT, PLUS 10' OF NEW HOLE F/12220 T/12370
	18:00 - 18:30	0.50	EQT	2	FIT TEST TO 650 PSI- 15.5 EMW
	18:30 - 04:00	9.50	DRL	1	DRILLING F/12370 T/ 127730' 360' 37.9/HR WOB 12K RPM 135 GPM 211
	04:00 - 05:00	1.00	RIG	2	WORK ON PUMPS-CHANGE PUMP SWAB
	05:00 - 06:00	1.00	OTH		CONNECTIONS, CLEAN SUCTION SCREENS & SPR
11/8/2008	06:00 - 16:30	10.50	DRL	1	DRILLING F/12730 T/13207 477' 45.4/HR WOB 12/14 DHRPM 135 GPM 211
	16:30 - 17:00	0.50	RIG	1	RIG SERVICE

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14-8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
11/8/2008	17:00 - 04:00	11.00	DRL	1	DRILLING F/13207 T/ 13794' 587' 53.3'/HR
	04:00 - 06:00	2.00	OTH		CONNECTIONS & SPR
11/9/2008	06:00 - 16:00	10.00	DRL	1	DRILLING F/13794 T/ 14084' 290' 29'/HR
	16:00 - 16:30	0.50	RIG	1	RIG SERVICE
	16:30 - 04:30	12.00	DRL	1	DRILLING F/ 14084' T/ 14564' 480' 40'/HR
	04:30 - 06:00	1.50	OTH		CONNECTIONS & SPR
11/10/2008	06:00 - 14:30	8.50	DRL	1	DRILLING F/14564 T/14940 376' 44.2'/HR
					WOB 12-15 DHRPM 160 GPM 229
	14:30 - 15:00	0.50	RIG	1	RIG SERVICE
	15:00 - 00:00	9.00	DRL	1	DRILLING F/14940 T/ 15305 365' 40.5'/HR
					WOB 14-18 DHRPM 150 GPM 211
	00:00 - 01:30	1.50	OTH		CONNECTIONS & SPR
	01:30 - 03:30	2.00	SUR	1	CIRCULATE, BUILD DRY SLUG, DROP SURVEY, PUMP DRY SLUG
	03:30 - 06:00	2.50	TRP	10	TOOH W/ BIT # 12
11/11/2008	06:00 - 11:00	5.00	TRP	10	TRIP OUT OF HOLE FOR BIT
	11:00 - 12:00	1.00	TRP	10	CHANGE OUT MOTOR, PULL SURVEY AND PICK UP BIT #13
	12:00 - 18:30	6.50	TRP	10	TRIP IN HOLE WITH BIT #13 TO 15235'
	18:30 - 19:00	0.50	REAM	1	WASH & REAM 70' (PRECAUTIONARY)
	19:00 - 05:00	10.00	DRL	1	DRILL F/ 15305' TO 15720' 415' 41.5'/HR
					WOB 14 DHRPM 115 GPM 229
	05:00 - 06:00	1.00	OTH		CONNECTIONS & SPR
11/12/2008	06:00 - 12:30	6.50	DRL	1	DRILLING F/15720 T/16011 291' 44.8'/HR
					WOB 14/15 DHRPM 115 GPM 229
	12:30 - 13:00	0.50	RIG	1	RIG SERVICE
	13:00 - 13:30	0.50	OTH		CHANGE OUT ROTATING HEAD RUBBER
	13:30 - 22:00	8.50	DRL	1	DRILLING F/16011 T/ 16340' 329' 38.7'/HR
					WOB 15/17 DHRPM 115 GPM 229
	22:00 - 23:00	1.00	OTH		CONNECTIONS & SPR
	23:00 - 00:00	1.00			DROP SURVEY, MIX & PUMP DRY SLUG
	00:00 - 06:00	6.00	TRP	10	TOOH W/ BIT # 13
11/13/2008	06:00 - 07:30	1.50	TRP	10	TRIP OUT OF HOLE WITH BIT #13
	07:30 - 08:30	1.00	TRP	1	CHANGE OUT BIT AND BHA, CLEAN RIG FLOOR
	08:30 - 14:30	6.00	TRP	10	TRIP IN HOLE WITH BIT #14 TO SHOE
	14:30 - 15:00	0.50	OTH		FIX CLAMP ON ROTATING HEAD
	15:00 - 16:30	1.50	RIG	6	CUT DRILLING LINE
	16:30 - 19:00	2.50	TRP	10	TRIP IN HOLE
	19:00 - 19:30	0.50	REAM	1	WASH AND REAM 70' TO BOTTOM, NO FILL
	19:30 - 05:30	10.00	DRL	1	DRILLING F/16340 T/ 16426' 86' 8.6'/HR
					WOB 14 DHRPM 75 GPM 211
	05:30 - 06:00	0.50	OTH		CONNECTION & SPR
11/14/2008	06:00 - 02:30	20.50	DRL	2	DRILLING F/ 16426' TO 16561' 135' 6.5'/HR
					WOB 15 DHRPM 75 GPM 211
	02:30 - 03:00	0.50	RIG	1	RIG SERVICE
	03:00 - 05:30	2.50	DRL	1	DRILLING F/ 16561' TO 16570' 9' 4.5'/HR
					WOB 17 DHRPM 75 GPM 211
	05:30 - 06:00	0.50	OTH		CONNECTIONS & SPR
11/15/2008	06:00 - 07:00	1.00	CIRC	1	CIRCULATE, FLOW CHECK AND PUMP TRIP SLUG
	07:00 - 14:30	7.50	TRP	1	TRIP OUT OF HOLE WITH BIT #14. SLM WAS 13.64' SHORT
	14:30 - 15:00	0.50	TRP	1	LAY DOWN TORQUE BUSTER AND CHANGE OUT BITS
	15:00 - 22:00	7.00	TRP	10	TRIP IN HOLE WITH BIT#15 (INSTALL NEW ROTATING HEAD RUBBER)
	22:00 - 22:30	0.50	REAM	1	SAFETY WASH & REAM
	22:30 - 06:00	7.50	DRL	1	DRILLF/ 16570' TO 16622' 52' 6.9'/HR
					WOB 14-15 DHRPM 75 GPM 229

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
11/16/2008	06:00 - 14:00	8.00	DRL	1	DRILLING F/16622 T/16655 33' 4.1'/HR WOB 15/18 RPM 50/75 GPM 229
	14:00 - 03:00	13.00	RIG	2	RIG REPAIR-RIG HAD POWER SURGE AND BLOWED MAIN TRANSFORMER. WAITED ON ELECTRICIAN. POWER RESTORED TO RIG. WORK TIGHT HOLE @ F/16655 T/16640. CAME FREE. WASHED AND REAMED TO BOTTOM.
	03:00 - 06:00	3.00	DRL	1	DRILLING F/16655 T/16665 10' 3.3'/HR WOB 14/18 RPM 60/75 GPM 229
11/17/2008	06:00 - 08:30	2.50	DRL	1	DRILLING F/16665 T/16667
	08:30 - 09:30	1.00	CIRC	1	CIRCULATE, BUILD AND PUMP TRIP SLUG
	09:30 - 14:00	4.50	TRP	10	TRIP OUT OF HOLE FOR BIT, STOP @ 10398
	14:00 - 18:00	4.00	RIG	2	RIG REPAIR-CHANGE BURNT TRANSFORMER WITH BACK UPS, LOAD TEST WITH ALL 480 VOLT COMPONENTS.
	18:00 - 22:30	4.50	TRP	10	TRIP OUT OF HOLE, CHANGE OUT JARS
11/18/2008	22:30 - 23:00	0.50	TRP	1	CHANGE OUT BITS & CLEAN FLOOR
	23:00 - 06:00	7.00	TRP	10	TRIP IN HOLE W/ BIT # 16
	06:00 - 06:30	0.50	REAM	1	WASH AND REAM 75' TO TO BOTTOM, NO FILL
	06:30 - 13:30	7.00	DRL	1	DRILLING F/16667 T/16690'
	13:30 - 14:00	0.50	CIRC	1	CIRCULATE AND CONDITION HOLE FOR SHORT TRIP
	14:00 - 14:30	0.50	TRP	14	SHORT TRIP 5 STANDS
	14:30 - 16:30	2.00	CIRC	1	CIRCULATE AND CONDITION HOLE FOR LOGS
	16:30 - 23:30	7.00	TRP	2	TRIP OUT OF HOLE FOR LOGS
11/19/2008	23:30 - 06:00	6.50	LOG	1	RIG UP LOGGERS AND LOG. FIRST RUN PLATFORM EXPRESS LOGGERS DEPTH 16688', TOOL FAILURE, PULL OUT AND REPLACE TOOL
	06:00 - 23:30	17.50	LOG	1	LOGGING, FIRST RUN PEX TOOL FAILURE, SECOND RUN PEX, THIRD RUN OBMI, FOURTH RUN DIPOLE SONIC
	23:30 - 01:00	1.50	LOG	1	RIG DOWN SCHLUMBERGER
11/20/2008	01:00 - 06:00	5.00	TRP	2	TRIP IN TO CONDITION FOR CASING WILL SLIP AND CUT DRILLING LINE AT SHOE
	06:00 - 06:30	0.50	TRP	2	TRIP INTO SHOE
	06:30 - 07:30	1.00	RIG	6	SLIP AND CUT DRILLING LINE
	07:30 - 10:30	3.00	TRP	2	FINISH TRIP IN
	10:30 - 11:00	0.50	REAM	1	WASH AND REAM LAST STD TO BOTTOM
	11:00 - 13:30	2.50	CIRC	1	CIRCULATE, BOTTOMS UP FLARE 25'
	13:30 - 06:00	16.50	TRP	3	LAY DOWN DRILL STRING
11/21/2008	06:00 - 06:30	0.50	OTH		PULL WEAR BUSHING
	06:30 - 08:30	2.00	CSG	1	RIG UP CASING CREW HELD SAFETY MEETING
	08:30 - 23:00	14.50	CSG	2	RAN 44 JTS OF 4 1/2" #16.6 Q-125, 44 JTS OF #15.1 Q-125, 302 JTS OF #15.1 P-110, PLUS 4 MARKER JTS AND FLOAT COLLAR AND FLOAT SHOE STACKED LANDED AT 16690' KB
	23:00 - 02:00	3.00	CIRC	1	CIRCULATE CASING
	02:00 - 04:30	2.50	CMT	2	HEAD UP HALLIBURTON AND CEMENT PRESSURE TEST LINES TO 8000 PSI, PUMPED 40 BBLS OF 15 PPG TUNED SPACER, 205.6 BBLS OF 15 PPG 1.71 YIELD CEMENT DISPLACED WITH 236 BBLS OF 8.33 PPG CLAYFIX WATER, BUMPED PLUG 1000 PSI OVER CIRCULATING PRESSURE HELD 15 MIN, FLOATS HELD GOOD RETURNS THROUGH OUT JOB
	04:30 - 06:00	1.50	WOT	1	WOC, STRIP OBM BACK TO 10 PPG
	06:00 - 13:00	7.00	BOP	1	NIPPLE DOWN SET SLIPS 100000 IN SLIPS
11/22/2008	13:00 - 06:00	17.00	OTH		STRIP OBM DOWN TO 10 PPG, CLEAN SUB, PUMPS AND OUT BUILDINGS FOR RIG MOVE RIG DOWN RIG RELEASE AT 06:00, 11/22/2008 GOT PERMISSION TO USE WV16G FOR STAGE OUT ON RIG MOVE

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## Operations Summary Report - COMPLETION

Well Name: WV 16C-14-8-21  
 Location: 14- 8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/2/2008	08:00 - 12:00	4.00	LOG	2	MIRU OWP ELU. MU AND RIH WITH CCL/GR/CBL/VDL LOGGING TOOLS AND TAG CORRELATED PBTD AT 16,676' (FC @ 16,687'). PRESSURE UP TO 4,000 PSI AND LOG UP TO 7,300'. BLEED PRESSURE TO ZERO AND POOH. RDMO ELU. EST. TOC AT 7,820'. BHT= 320°.
12/3/2008	13:00 - 14:00	1.00	EQT	1	MIRU IPS PUMP AND TEST 4 1/2" CSG TO 10,000 PSI AND 4 1/2 X 7" ANNULUS TO 3,000 PSI. BOTH HELD GOOD. BLEED PRESSURE TO ZERO. RDMO PUMP.
12/7/2008	09:00 - 15:00	6.00	WHD	2	SPOT AND START FILLING HES MOUNTAIN MOVERS. NU 15K FRAC TREE, SCHOONER HCR AND STINGER FRAC HEAD. SET FRAC STAND. START HEATING FRAC WATER
12/8/2008	08:00 - 13:30	5.50	PERF	2	MIRU IPS FB AND OWP ELU. MU & RIH WITH 2.5" GUNS. SHOOT 42 HOLES FROM 16,213' TO 16,671'. 1,000 PSI WHEN GUNS WERE FIRED. 1,200 PSI WITH GUNS AT SURFACE.
12/9/2008	13:30 - 06:00	16.50	STIM	2	MIRU HES FRAC EQUIPMENT.
	06:00 - 07:30	1.50	STIM	3	FRAC STAGE #1 WITH 1,488 BBLs 35# HYBOR-G CARRYING 47,467 LBS 30/50 SBXL AND 16,719 LBS 30/60 SINTERLITE SAND FROM .5 TO 4 PPA. AVG RATE= 44.3 BPM. AVG PSI = 10,866.
	07:30 - 10:10	2.67	PERF	2	STAGE #2. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 16,090' WITH 8,100 PSI. SHOOT 42 HOLES FROM 15,412' TO 16,062'.
	10:10 - 11:25	1.25	STIM	3	FRAC STAGE #2 WITH 1,991 BBLs SLICKWATER CARRYING 8,553 LBS 30/50 SBXL, 5,974 LBS 30/50 TLC AND 8,481 LBS 30/60 SINTERLITE SAND FROM .5 TO 1.25 PPA. AVG RATE= 35.7 BPM. AVG PSI = 11,237.
	11:25 - 13:35	2.17	PERF	2	STAGE #3. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 15,320' WITH 8,000 PSI. SHOOT 42 HOLES FROM 14,815' TO 15,308'.
	13:35 - 15:25	1.83	STIM	3	FRAC STAGE #3 WITH 2,530 BBLs SLICKWATER CARRYING 12,578 LBS 30/60 SINTERLITE AND 30,500 LBS 30/50 TLC SAND AND FROM .5 TO 1.75 PPA. AVG RATE= 40.2 BPM. AVG PSI = 10,896.
	15:25 - 17:30	2.08	PERF	2	STAGE #4. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 14,698' WITH 8,000 PSI. SHOOT 42 HOLES FROM 14,233' TO 14,686'.
	17:30 - 19:00	1.50	STIM	3	FRAC STAGE #4 WITH 2,411 BBLs SLICKWATER CARRYING 35,921 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 43.5 BPM. AVG PSI = 10,443.
	19:00 - 21:45	2.75	PERF	2	STAGE #5. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 14,100' WITH 7,700 PSI. SHOOT 42 HOLES FROM 13,629' TO 14,075'.
	21:45 - 23:00	1.25	STIM	3	FRAC STAGE #5 WITH 2,501 BBLs SLICKWATER CARRYING 24,281 LBS 30/50 WHITE SAND AND 15,623 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 40.9 BPM. AVG PSI = 9,725.
	23:00 - 01:45	2.75	PERF	2	STAGE #6. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 13,490' WITH 7,400 PSI. SHOOT 42 HOLES FROM 12,727' TO 13,468'.
	01:45 - 02:50	1.08	STIM	3	FRAC STAGE #6 WITH 2,501 BBLs SLICKWATER CARRYING 25,455 LBS 30/50 WHITE SAND AND 14,886 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 46.4 BPM. AVG PSI = 8,732.
	02:50 - 05:30	2.67	PERF	2	STAGE #7. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT -' WITH - PSI. SHOOT 42 HOLES FROM 11,918' TO 12,485'.
	05:30 - 07:30	2.00	STIM	3	FRAC STAGE #7 WITH 2,452 BBLs SLICKWATER CARRYING 25,308 LBS 30/50 WHITE SAND AND 14,662 LBS 30/50 TLC SAND FROM .5 TO 1.5 PPA. AVG RATE= 45.2 BPM. AVG PSI = 7,842.
	07:30 - 09:05	1.58	PERF	2	STAGE #8. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 11,340' WITH 5,500 PSI. SHOOT 42 HOLES FROM 11,002' TO 11,320'.
	09:05 - 10:15	1.17	STIM	3	FRAC STAGE #8 WITH 2,690 BBLs SLICKWATER CARRYING 45,013 LBS 30/50 WHITE AND 18,725 LBS 30/50 TLC SAND FROM .5 TO 2 PPA. AVG RATE= 46.2 BPM. AVG PSI = 6,642.
12/10/2008	10:15 - 11:55	1.67	PERF	2	STAGE #9. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 10,850' WITH 3,700 PSI. SHOOT 36 HOLES FROM 10,269' TO 10,831'.

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## Operations Summary Report

Well Name: WV 16C-14-8-21  
 Location: 14-8-S 21-E 26  
 Rig Name: SST

Spud Date: 8/20/2008  
 Rig Release: 11/22/2008  
 Rig Number: 66

Date	From - To	Hours	Code	Sub Code	Description of Operations
12/10/2008	11:55 - 13:10	1.25	STIM	3	FRAC STAGE #9 WITH 3,145 BBLS SLICKWATER CARRYING 53,294 LBS 30/50 WHITE AND 32,809 LBS 30/50 TLC SAND FROM .5 TO 2 PPA. AVG RATE= 47.5 BPM. AVG PSI = 5,365.
	13:10 - 14:30	1.33	PERF	2	STAGE #10. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CBP. SET PLUG AT 9,920' WITH 3,400 PSI. SHOOT 42 HOLES FROM 8,919' TO 9,893'.
	14:30 - 15:50	1.33	STIM	3	FRAC STAGE #10 WITH 2,879 BBLS SLICKWATER CARRYING 57,375 LBS 30/50 WHITE AND 17,347 LBS 20/40 PROPTRAC SAND FROM .5 TO 2 PPA. AVG RATE= 46.3 BPM. AVG PSI = 4,887.
	15:50 - 16:55	1.08	PERF	2	STAGE #11. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 8,590' WITH 3,000 PSI. SHOOT 18 HOLES FROM 8,526' TO 8,562'.
	16:55 - 17:30	0.58	STIM	3	FRAC STAGE #11 WITH 667 BBLS DELTA 200 CARRYING 31,812 LBS 30/50 WHITE AND 12,630 LBS 20/40 PROPTAC SAND FROM 1 TO 4 PPA. AVG RATE= 46.3 BPM. AVG PSI = 4,902.
	17:30 - 18:45	1.25	PERF	2	STAGE #12. RU OWP ELU. MU & RIH WITH 2.5" GUNS AND 3.44" CFP. SET PLUG AT 7,720' WITH 2,500 PSI. SHOOT 30 HOLES FROM 7,278' TO 7,699'.
	18:45 - 19:30	0.75	STIM	3	FRAC STAGE #12 WITH 706 BBLS SLICKWATER CARRYING 34,098 LBS 30/50 WHITE AND 20,590 LBS 20/40 PROPTRAC SAND FROM 1 TO 4 PPA. AVG RATE= 48 BPM. AVG PSI = 4,434.
12/11/2008	19:30 - 06:00	10.50	LOC	4	RDMO OWP ELU AND HES FRAC EQUIPMENT.
	06:00 - 21:30	15.50	DRL	6	MIRU IPS CTU, GCDOE AND SPIRIT FLUIDS. LOAD CT WITH 120" WATER. MU QES 2 7/8" MOTOR/JARS AND 3.55" 5-BLADE JUNK MILL. TEST STACK TO 8,000 PSI. RIH AND DRILL OUT 11 PLUGS IN 5.5 HOURS TO PBTD DEPTH OF 16,687'. PUMP FINAL SWEEP AND POOH. RDMO IPS CTU, GCDOE & SPIRIT FLUIDS.
12/12/2008	21:30 - 06:00	8.50	PTST	2	FLOWING TO SALES THROUGH IPS FBE.
12/12/2008	06:00 - 06:00	24.00	PTST	2	FLOWING TO SALES THROUGH IPS FBE.
12/13/2008	06:00 - 06:00	24.00	PTST	2	FLOWING TO SALES THROUGH IPS FBE.
12/14/2008	06:00 - 06:00	24.00	PTST	2	FLOWING TO SALES THROUGH IPS FBE.
12/15/2008	06:00 - 06:00	24.00	PTST	2	RDMO IPS FBE. FLOWING TO SALES THROUGH PRODUCTION EQUIPMENT.

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

<b>1a. Type of Well</b> <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other						<b>5. Lease Serial No.</b> UTU-0807			
<b>b. Type of Completion:</b> <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resv. Other: _____						<b>6. If Indian, Allottee or Tribe Name</b> UTE TRIBE			
<b>2. Name of Operator</b> Questar Exploration & Production Co.						<b>7. Unit or CA Agreement Name and No.</b> WONSITS VALLEY UNIT			
<b>3. Address</b> 11002 EAST 17500 SOUTH - VERNAL, UT 84078				<b>3a. Phone No. (include area code)</b> 435.781.4342 - Dahn Caldwell		<b>8. Lease Name and Well No.</b> WV 16C 14 8 21			
<b>4. Location of Well (Report location clearly and in accordance with Federal requirements)*</b> 48' FSL, 1092' FEL, SESE, SEC 14-T8S-R21E At surface  48' FSL, 1092' FEL, SESE, SEC 14-T8S-R21E At top prod. interval reported below  48' FSL, 1092' FEL, SESE, SEC 14-T8S-R21E At total depth						<b>9. AFI Well No.</b> 43-047-38737			
<b>14. Date Spudded</b> 08/20/2008				<b>15. Date T.D. Reached</b> 11/17/2008		<b>10. Field and Pool or Exploratory</b> WONSITS VALLEY			
<b>16. Date Completed</b> 12/11/2008 <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.				<b>11. Sec., T., R., M., on Block and Survey or Area</b> SEC 14-T8S-R21E					
<b>18. Total Depth:</b> MD 16,890' TVD				<b>19. Plug Back T.D.:</b> MD 16,687' TVD		<b>12. County or Parish</b> UINTAH			
<b>20. Depth Bridge Plug Set:</b> MD N/A TVD				<b>13. State</b> UT					
<b>21. Type Electric &amp; Other Mechanical Logs Run (Submit copy of each)</b> THREE DETECTOR DENSITY/GR & ACOUSTIC CBL/GR/CCL/TEMP						<b>17. Elevations (DF, RKB, RT, GL)*</b> 4916' KB			
<b>22. Was well cored?</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) <b>Was DST run?</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) <b>Directional Survey?</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy)									
<b>23. Casing and Liner Record (Report all strings set in well)</b>									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8"	68#		510'		500 SXS		SURF - CIRC	
12-1/4"	9-5/8"	47#		5,245'		1,990 SXS		SURF - UNK	
8-1/2"	7"	28#/28#		12,341'		2,645 SXS		SURF - UNK	
6-1/8"	4-1/2"	15.1/16.8		16,890'		675 SXS		7,820' - LOG	
<b>24. Tubing Record</b>									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
N/A		N/A							
<b>25. Producing Intervals</b>									
Formation		Top		Bottom		Perforated Interval		Size	No. Holes
A) SEE ATTACHMENT ONE						SEE ATTACHMENT ONE			
B)									
C)									
D)									
<b>26. Perforation Record</b>									
Perforated Interval		Size		No. Holes		Perf. Status			
SEE ATTACHMENT ONE									
<b>27. Acid, Fracture, Treatment, Cement Squeeze, etc.</b>									
Depth Interval		Amount and Type of Material							
SEE ATTACHMENT ONE		SEE ATTACHMENT ONE							
<b>28. Production - Interval A</b>									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/11/08	12/16/08	24	→	37	3,371	867			FLOWING
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
30/64	N/A	1,450	→					PRODUCING	
<b>28a. Production - Interval B</b>									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

\*(See instructions and spaces for additional data on page 2)

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## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 29. Disposition of Gas (Solid, used for fuel, vented, etc.)

SOLD

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
GREEN RIVER	2874			MANCOS 'B'	12721
MAHOGANY	3394			FRONTIER	16405
WASATCH	6086			DAKOTA SILT	16287
MESA VERDE	9003			DAKOTA	16496
CASTLEGATE	11493				
BLACK HAWK	11828				
MANCOS	12249				

## 32. Additional remarks (include plugging procedure):

FUTURE OIL PROSPECTS: GREEN RIVER &amp; MAHOGANY

## 33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☐ Directional Survey
 ☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☒ Other: PERFORATION & FRACING REPORT

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) JIM SIMONTON

Title COMPLETION SUPERVISOR

Signature

Jim Simonton (d/c)

Date 01/23/2009

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)

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**WV 16C 14 8 21 – Attachment Page One**  
**PERFORATION DETAIL:**

Open Perfs	Stimulation					Perf Status
7278' – 7280'	Frac w/	54,688	Lbs in	29,652	Gals	Open – Wasatch
7290' – 7292'						Open – Wasatch
7359' – 7361'						Open – Wasatch
7376' – 7378'						Open – Wasatch
7697' – 7699'						Open – Wasatch
8526' – 8530'	Frac w/	44,442	Lbs in	28,014	Gals	Open – Wasatch
8560' – 8562'						Open – Wasatch
8919' – 8921'	Frac w/	74,722	Lbs in	120,918	Gals	Open – Wasatch
9009' – 9010'						Open – Mesa Verde
9066' – 9068'						Open – Mesa Verde
9089' – 9091'						Open – Mesa Verde
9246' – 9248'						Open – Mesa Verde
9646' – 9647'						Open – Mesa Verde
9652' – 9653'						Open – Mesa Verde
9707' – 9709'						Open – Mesa Verde
9892' – 9893'						Open – Mesa Verde
10269' – 10271'	Frac w/	86,103	Lbs in	132,090	Gals	Open – Mesa Verde
10273' – 10275'						Open – Mesa Verde
10393' – 10395'						Open – Mesa Verde
10506' – 10508'						Open – Mesa Verde
10587' – 10589'						Open – Mesa Verde
10704' – 10706'						Open – Mesa Verde
10829' – 10831'						Open – Mesa Verde
11002' – 11004'	Frac w/	63,738	Lbs in	112,980	Gals	Open – Mesa Verde
11066' – 11068'						Open – Mesa Verde
11144' – 11146'						Open – Mesa Verde
11187' – 11189'						Open – Mesa Verde
11246' – 11248'						Open – Mesa Verde
11318' – 11320'						Open – Mesa Verde
11918' – 11920'	Frac w/	39,970	Lbs in	102,984	Gals	Open – Blackhawk
11986' – 11988'						Open – Blackhawk
12075' – 12077'						Open – Blackhawk
12149' – 12151'						Open – Blackhawk
12230' – 12232'						Open – Blackhawk
12358' – 12360'						Open – Mancos
12483' – 12485'						Open – Mancos

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12727' - 12729'	Frac w/	40,341	Lbs in	105,042	Gals	Open - Mancos
12750' - 12751'						Open - Mancos
12808' - 12810'						Open - Mancos
13017' - 13019'						Open - Mancos
13158' - 13160'						Open - Mancos
13270' - 13272'						Open - Mancos
13357' - 13358'						Open - Mancos
13466' - 13468'						Open - Mancos
13629' - 13631'	Frac w/	39,904	Lbs in	105,042	Gals	Open - Mancos
13688' - 13692'						Open - Mancos
13737' - 13738'						Open - Mancos
13838' - 13840'						Open - Mancos
13975' - 13976'						Open - Mancos
14071' - 14075'						Open - Mancos
14233' - 14235'	Frac w/	35,921	Lbs in	101,262	Gals	Open - Mancos
14354' - 14356'						Open - Mancos
14487' - 14489'						Open - Mancos
14593' - 14595'						Open - Mancos
14642' - 14644'						Open - Mancos
14652' - 14654'						Open - Mancos
14684' - 14686'						Open - Mancos
14815' - 14817'	Frac w/	43,078	Lbs in	106,260	Gals	Open - Mancos
14890' - 14892'						Open - Mancos
15028' - 15030'						Open - Mancos
15101' - 15105'						Open - Mancos
15238' - 15240'						Open - Mancos
15306' - 15308'						Open - Mancos
15412' - 15414'	Frac w/	22,988	Lbs in	83,622	Gals	Open - Frontier
15534' - 15535'						Open - Frontier
15705' - 15707'						Open - Frontier
15736' - 15738'						Open - Frontier
15774' - 15776'						Open - Frontier
15909' - 15911'						Open - Frontier
16002' - 16003'						Open - Frontier
16060' - 16062'						Open - Frontier
16213' - 16214'	Frac w/	64,186	Lbs in	62,496	Gals	Open - Frontier
16301' - 16303'						Open - Dakota Silt
16499' - 16503'						Open - Dakota
16613' - 16615'						Open - Dakota 'C'
16659' - 16662'						Open - Dakota 'C'
16669' - 16671'						Open - Dakota 'C'

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**CONFIDENTIAL**

BLM APPROVED  
CMB No. 1004-0137  
Expires: July 31, 2010

Lease Serial No. UUTU-080744

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

6. If Indian, Allottee or Tribe Name

UTE TRIBE

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

QUESTAR EXPLORATION & PRODUCTION CO.

CONTACT: Mike Stahl

3a. Address

11002 EAST 17500 SOUTH, VERNAL, UTAH 84078

3b. Phone No. (include area code)

(303) 308-3613

7. If Unit of CA/Agreement, Name and/or No.

WONSITS VALLEY UNIT

8. Well Name and No.

WV 16C-14-8-21

9. API Well No.

43-047-38737

10. Field and Pool or Exploratory Area

WONSITS VALLEY

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

48' FSL 1092' FEL, SESE, SECTION 14, T8S, R21E

11. Country or Parish, State

UINTAH, UTAH

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>COMMINGLING</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

In Compliance with the Administrative Utah code for drilling and operating practice R649-3-22, completion into two or more pools. Questar Exploration & Production Company hereby requests the commingling of production between intervals in the WV 16C-14-8-21. Questar considers this commingling to be in the public interest in that it promotes maximum ultimate economic recovery, prevents waste, provides for orderly and efficient production of oil and gas and presents no detrimental effects from commingling the gas streams.

Questar requests approval for the commingling of production of the Dakota and Wasatch intervals. Based upon offset production logs, the proposed initial allocation is as follows: Dakota - 10% ; Mancos - 40% ; Mesa Verde - 40% ; Wasatch - 10%.

On an annual basis the gas will be sampled and a determination will be made of the BTU content and gas constituents. These annual samples can be used to determine if the gas allocation is changing over time. If these samples do not indicate that any adjustments in allocation are necessary they may be discontinued after the fifth anniversary of the initial production.

COPY SENT TO OPERATOR

Date: 4.14.2009

Initials: KS

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Laura Bills

Title Associate Regulatory Affairs Analyst

Signature

*Laura Bills*

Date 03/12/2009

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*[Signature]*

Title

*Reg. Eng.*

Date

*4/13/09*

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

*Docu*

Federal Approval Of This  
Action Is Necessary

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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MAR 16 2009

DIV. OF OIL, GAS & MINING

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# AFFIDAVIT OF NOTICE

STATE OF COLORADO     )  
  ) ss:  
COUNTY OF DENVER     )

Nathan C. Koeniger, being duly sworn, deposes and says:

1. That I am employed by Questar Exploration and Production Company in the capacity as a Landman. My business address is:


Independence Plaza  
1050 17<sup>th</sup> Street, Suite 500  
Denver, CO 80265

2. In my capacity as a Landman, pursuant to the provisions of Utah Administrative Rule 649-3-22, I have provided a copy of Questar Exploration and Production Company's application for completion of the WV 16C-14-8-21 well into two or more pools, in the form of Utah Division of Oil, Gas and Mining's Form 9 Sundry Notice, to owners of all contiguous oil and gas leases or drilling units overlying the pools which are the subject of that application.
3. In my capacity as a Landman, I am authorized to provide such notice of Questar Exploration and Production Company's application to contiguous owners and to make this affidavit on this 4<sup>th</sup> day of March 2009.

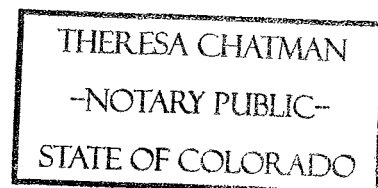


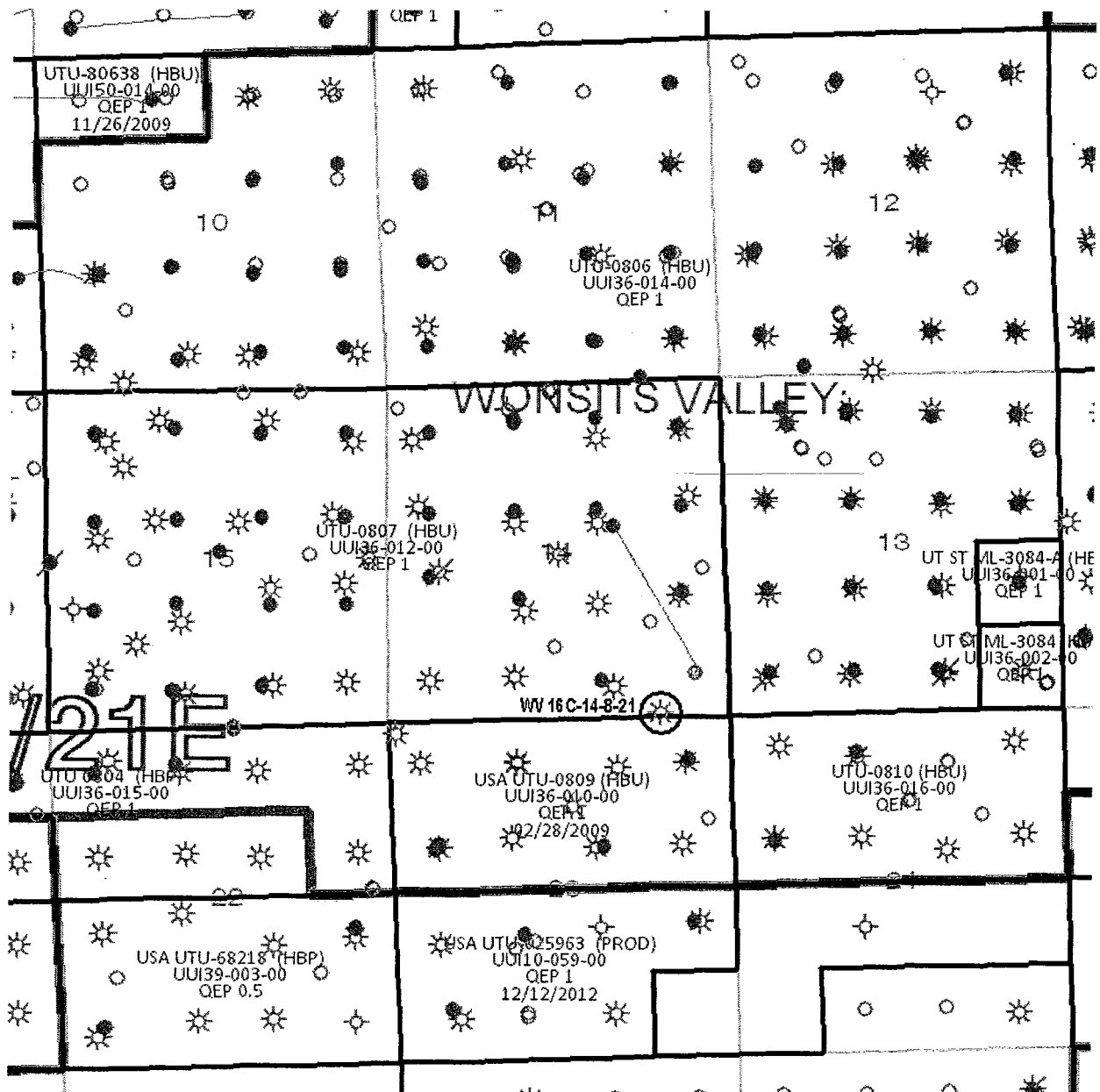
Printed Name: Nathan C. Koeniger

The foregoing instrument was sworn to and subscribed before me this 4<sup>th</sup> day of March 2009, by Nathan C. Koeniger.

  
Notary Public

MY COMMISSION EXPIRES: 7/7/4





**T8S-R21E**

○ Commingled well

**Tw/Kmv**  
**COMMINGLED PRODUCTION**  
Uinta Basin—Uintah County, Utah

**Well: WV 16C-14-8-21**  
**Lease: UTU 0807**

**QUESTAR**  
Exploration and  
Production

1050 17th St., # 500 Denver, CO 80202

Geologist:

Landman: Nate Koeniger/Chad Matney/Birgit Roesink

Date: February 17, 2009

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET** (for state use only)

**ROUTING**  
 CDW

Change of Operator (Well Sold)

**X - Operator Name Change**

The operator of the well(s) listed below has changed, effective:

**6/14/2010**

<b>FROM:</b> (Old Operator): N5085-Questar Exploration and Production Company 1050 17th St, Suite 500 Denver, CO 80265  Phone: 1 (303) 308-3048	<b>TO:</b> ( New Operator): N3700-QEP Energy Company 1050 17th St, Suite 500 Denver, CO 80265  Phone: 1 (303) 308-3048
--	---

**CA No.**

**Unit:**

**WONSITS VALLEY**

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED								

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/28/2010
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/28/2010
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/24/2010
- Is the new operator registered in the State of Utah: Business Number: 764611-0143
- (R649-9-2)Waste Management Plan has been received on: Requested
- Inspections of LA PA state/fee well sites complete on: n/a
- Reports current for Production/Disposition & Sundries on: ok
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 8/16/2010 BIA not yet
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 8/16/2010
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/29/2010

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 6/30/2010
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 6/30/2010
- Bond information entered in RBDMS on: 6/30/2010
- Fee/State wells attached to bond in RBDMS on: 6/30/2010
- Injection Projects to new operator in RBDMS on: 6/30/2010
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: ESB000024
- Indian well(s) covered by Bond Number: 965010693
- (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965010695
- The **FORMER** operator has requested a release of liability from their bond on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1 TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5 LEASE DESIGNATION AND SERIAL NUMBER: See attached
2 NAME OF OPERATOR: Questar Exploration and Production Company <i>N5085</i>		6 IF INDIAN, ALLOTTEE OR TRIBE NAME: See attached
3 ADDRESS OF OPERATOR: 1050 17th Street, Suite 500 Denver, CO 80265		7 UNIT or CA AGREEMENT NAME: See attached
4 LOCATION OF WELL FOOTAGES AT SURFACE: See attached		8 WELL NAME and NUMBER: See attached
PHONE NUMBER: (303) 672-6900		9 API NUMBER: Attached
10 FIELD AND POOL, OR WILDCAT: See attached		

COUNTY: Attached

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

**11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>6/14/2010</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Operator Name Change</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective June 14, 2010 Questar Exploration and Production Company changed its name to QEP Energy Company. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024)

Utah State Bond Number: ~~965003033~~

Fee Land Bond Number: ~~965003033~~ *965010695*

BIA Bond Number: ~~799446~~ *965010693*

The attached document is an all inclusive list of the wells operated by Questar Exploration and Production Company. As of June 14, 2010 QEP Energy Company assumes all rights, duties and obligations as operator of the properties as described on the list

NAME (PLEASE PRINT) Morgan Anderson

TITLE Regulatory Affairs Analyst

SIGNATURE *Morgan Anderson*

DATE 6/23/2010

(This space for State use only)

**RECEIVED**

**JUN 28 2010**

DIV. OF OIL, GAS & MINING

(See Instructions on Reverse Side)

**APPROVED** *6/30/2009*  
*Earlene Russell*  
Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
WONSITS VALLEY  
effective June 14, 2010

well_name	sec	tpw	rng	api	entity	mineral lease	type	stat	C
WV 43	11	080S	210E	4304715471	5265	Federal	OW	P	
WV 48	10	080S	210E	4304715476	5265	Federal	OW	P	
WV 53	10	080S	210E	4304720003	5265	Federal	OW	P	
WV 55	14	080S	210E	4304720005	5265	Federal	OW	P	
WV 62	10	080S	210E	4304720024	5265	Federal	OW	P	
WV 65	15	080S	210E	4304720041	5265	Federal	OW	P	
WV 83 WG	23	080S	210E	4304720205	17123	Federal	GW	P	
WV 103	14	080S	210E	4304730021	5265	Federal	OW	P	
WV 104	15	080S	210E	4304730022	5265	Federal	OW	P	
WV 105	10	080S	210E	4304730023	5265	Federal	OW	P	
WV 109	15	080S	210E	4304730045	5265	Federal	OW	P	
WV 110	14	080S	210E	4304730046	5265	Federal	OW	P	
WV 112	15	080S	210E	4304730048	5265	Federal	OW	P	
WV 124	15	080S	210E	4304730745	5265	Federal	OW	P	
WV 128	10	080S	210E	4304730798	5265	Federal	OW	P	
WV 132	15	080S	210E	4304730822	5265	Federal	OW	P	
WV 136	21	080S	210E	4304731047	5265	Federal	OW	S	
WV 137	11	080S	210E	4304731523	5265	Federal	OW	P	
WV 133	15	080S	210E	4304731706	5265	Federal	OW	P	
WV 144	10	080S	210E	4304731807	5265	Federal	OW	P	
WV 145	18	080S	220E	4304731820	17123	Federal	GW	P	
WV 121	14	080S	210E	4304731873	5265	Federal	OW	TA	
WV 135-2	21	080S	210E	4304732016	5265	Federal	OW	P	
WV 130	22	080S	210E	4304732307	5265	Federal	OW	P	
WV 119	21	080S	210E	4304732461	5265	Federal	OW	P	
WV 54 WG	07	080S	220E	4304732821	17123	Federal	GW	P	
WV 69 WG	18	080S	220E	4304732829	17123	Federal	GW	P	
WV 38 WG	08	080S	220E	4304732831	17123	Federal	GW	P	
WV 49 WG	08	080S	220E	4304732832	17123	Federal	GW	P	
WV 138 WG	18	080S	220E	4304733054	17123	Federal	GW	P	
WV 14 WG	12	080S	210E	4304733070	17123	Federal	GW	P	
WV 11 WG	12	080S	210E	4304733085	17123	Federal	GW	P	
WV 81 WG	24	080S	210E	4304733086	17123	Federal	GW	S	
WV 146 WG	19	080S	220E	4304733128	17123	Federal	GW	P	
WV 1W-14-8- 21	14	080S	210E	4304733220	17123	Federal	GW	P	
WV 5W-13- 8-21	13	080S	210E	4304733221	17123	Federal	GW	P	
WV 46 WG	07	080S	220E	4304733241	17123	Federal	GW	P	
WV 9W-14-8-21	14	080S	210E	4304733269	17123	Federal	GW	P	
WV 7W-13-8-21	13	080S	210E	4304733270	17123	Federal	GW	P	
WV 1W-18-8-22	18	080S	220E	4304733294	17123	Federal	GW	P	
WV 11W-8-8-22	08	080S	220E	4304733295	17123	Federal	GW	P	
WV 3W-8-8-22	08	080S	220E	4304733493	17123	Federal	GW	S	
WV 5W-7-8-22	07	080S	220E	4304733494	17123	Federal	GW	S	
WV 11W-7-8-22	07	080S	220E	4304733495	17123	Federal	GW	P	
WV 13W-7-8-22	07	080S	220E	4304733496	17123	Federal	GW	P	
WV 1W-7-8-22	07	080S	220E	4304733501	17123	Federal	GW	P	
WV 3W-7-8-22	07	080S	220E	4304733502	17123	Federal	GW	P	
WV 7WRG-7-8-22	07	080S	220E	4304733503	5265	Federal	OW	P	
WV 16W-9-8-21	09	080S	210E	4304733529	17123	Federal	GW	P	

Bonds: BLM = ESB000024

BIA = 965010693

State = 965010695

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
WONSITS VALLEY  
effective June 14, 2010

well_name	sec	tpw	rng	api	entity	mineral lease	type	stat	C
WV 1W-12-8-21	12	080S	210E	4304733531	17123	Federal	GW	S	
WV 1W-13-8-21	13	080S	210E	4304733532	17123	Federal	GW	S	
WV 3W-18-8-22	18	080S	220E	4304733533	17123	Federal	GW	P	
WV 9W-12-8-21	12	080S	210E	4304733534	17123	Federal	GW	P	
WV 11W-12-8-21	12	080S	210E	4304733535	17123	Federal	GW	P	
WV 11W-13-8-21	13	080S	210E	4304733536	17123	Federal	GW	P	
WV 13W-12-8-21	12	080S	210E	4304733537	17123	Federal	GW	S	
WV 13W-18-8-22	18	080S	220E	4304733538	17123	Federal	GW	P	
WV 16G-9-8-21	09	080S	210E	4304733565	5265	Federal	OW	P	
WV 1W-21-8-21	21	080S	210E	4304733602	17123	Federal	GW	P	
WV 3W-13-8-21	13	080S	210E	4304733603	17123	Federal	GW	S	
WV 3W-22-8-21	22	080S	210E	4304733604	17123	Federal	GW	P	
WV 3W-24-8-21	24	080S	210E	4304733605	17123	Federal	GW	P	
WV 13W-14-8-21	14	080S	210E	4304733607	17123	Federal	GW	P	
WV 1W-24-8-21	24	080S	210E	4304733613	17123	Federal	GW	P	
WV 11W-18-8-22	18	080S	220E	4304733626	17123	Federal	GW	P	
WV 2W-10-8-21	10	080S	210E	4304733655	17123	Federal	GW	P	
WV 4W-11-8-21	11	080S	210E	4304733657	17123	Federal	GW	P	
WV 12W-10-8-21	10	080S	210E	4304733659	17123	Federal	GW	S	
WV 12G-10-8-21	10	080S	210E	4304733660	5265	Federal	OW	P	
WV 15W-9-8-21	09	080S	210E	4304733661	17123	Federal	GW	P	
WV 15G-9-8-21	09	080S	210E	4304733662	5265	Federal	OW	P	
WV 2W-13-8-21	13	080S	210E	4304733791	17123	Federal	GW	P	
WV 6W-13-8-21	13	080S	210E	4304733792	17123	Federal	GW	P	
WV 8W-13-8-21	13	080S	210E	4304733793	17123	Federal	GW	P	
WV 10W-1-8-21	01	080S	210E	4304733794	17123	Federal	GW	TA	
WV 10W-13-8-21	13	080S	210E	4304733795	17123	Federal	GW	P	
WV 12W-7-8-22	07	080S	220E	4304733808	17123	Federal	GW	P	
WV 6W-8-8-22	08	080S	220E	4304733811	17123	Federal	GW	P	
WV 7W-8-8-22	08	080S	220E	4304733812	17123	Federal	GW	P	
WV 10W-7-8-22	07	080S	220E	4304733813	17123	Federal	GW	P	
WV 12W-8-8-22	08	080S	220E	4304733815	17123	Federal	GW	P	
WV 14W-7-8-22	07	080S	220E	4304733816	17123	Federal	GW	P	
WV 16W-7-8-22	07	080S	220E	4304733817	17123	Federal	GW	P	
WV 6W-7-8-22	07	080S	220E	4304733828	17123	Federal	GW	P	
WV 6W-18-8-22	18	080S	220E	4304733842	17123	Federal	GW	P	
WV 6WC-18-8-22	18	080S	220E	4304733843	17123	Federal	GW	P	
WV 6WD-18-8-22	18	080S	220E	4304733844	17123	Federal	GW	P	
WV 5W-23-8-21	23	080S	210E	4304733860	17123	Federal	GW	P	
WV 7W-23-8-21	23	080S	210E	4304733861	17123	Federal	GW	P	
WV 8W-12-8-21	12	080S	210E	4304733862	17123	Federal	GW	P	
WV 10W-12-8-21	12	080S	210E	4304733863	17123	Federal	GW	P	
WV 14W-12-8-21	12	080S	210E	4304733864	17123	Federal	GW	P	
WV 16W-12-8-21	12	080S	210E	4304733865	17123	Federal	GW	P	
WV 1W-15-8-21	15	080S	210E	4304733902	17123	Federal	GW	S	
WV 1W-22-8-21	22	080S	210E	4304733903	17123	Federal	GW	S	
WV 1W-23-8-21	23	080S	210E	4304733904	17123	Federal	GW	P	
WV 6W-11-8-21	11	080S	210E	4304733906	17123	Federal	GW	P	
WV 7W-24-8-21	24	080S	210E	4304733908	17123	Federal	GW	P	

Bonds: BLM = ESB000024

BIA = 956010693

State = 965010695

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
WONSITS VALLEY  
effective June 14, 2010

well_name	sec	tpw	rng	api	entity	mineral lease	type	stat	C
WV 10W-11-8-21	11	080S	210E	4304733910	17123	Federal	GW	P	
WV 11W-15-8-21	15	080S	210E	4304733911	17123	Federal	GW	P	
WV 13W-11-8-21	11	080S	210E	4304733913	17123	Federal	GW	S	
WV 13W-15-8-21	15	080S	210E	4304733914	17123	Federal	GW	P	
WV 15W-10-8-21	10	080S	210E	4304733916	17123	Federal	GW	P	
WV 15W-15-8-21	15	080S	210E	4304733917	17123	Federal	GW	P	
WV 5W-14-8-21	14	080S	210E	4304733953	17123	Federal	GW	P	
WV 7W-14-8-21	14	080S	210E	4304733955	17123	Federal	GW	P	
WV 8W-11-8-21	11	080S	210E	4304733957	17123	Federal	GW	S	
WV 8W-14-8-21	14	080S	210E	4304733958	17123	Federal	GW	P	
WV 9W-15-8-21	15	080S	210E	4304733959	17123	Federal	GW	P	
WV 12W-13-8-21	13	080S	210E	4304733961	17123	Federal	GW	P	
WV 14W-13-8-21	13	080S	210E	4304733962	17123	Federal	GW	P	
WV 15W-14-8-21	14	080S	210E	4304733963	17123	Federal	GW	P	
WV 2W-18-8-22	18	080S	220E	4304733986	17123	Federal	GW	P	
WV 8W-18-8-22	18	080S	220E	4304733989	17123	Federal	GW	P	
WV 10W-18-8-22	18	080S	220E	4304733991	17123	Federal	GW	P	
WV 12W-18-8-22	18	080S	220E	4304733993	17123	Federal	GW	S	
WV 14W-18-8-22	18	080S	220E	4304733995	17123	Federal	GW	P	
WV 8W-1-8-21	01	080S	210E	4304734009	17123	Federal	GW	OPS	C
WV 4W-17-8-22	17	080S	220E	4304734038	17123	Federal	GW	P	
WV 12G-1-8-21	01	080S	210E	4304734108	5265	Federal	OW	TA	
WV 2W-14-8-21	14	080S	210E	4304734140	17123	Federal	GW	P	
GH 2W-21-8-21	21	080S	210E	4304734141	17123	Federal	GW	P	
WV 2W-23-8-21	23	080S	210E	4304734142	17123	Federal	GW	P	
WV 3W-21-8-21	21	080S	210E	4304734143	17123	Federal	GW	P	
WV 4W-13-8-21	13	080S	210E	4304734144	17123	Federal	GW	P	
WV 4W-21-8-21	21	080S	210E	4304734145	17123	Federal	GW	P	
WV 4W-22-8-21	22	080S	210E	4304734146	17123	Federal	GW	P	
WV 16W-11-8-21	11	080S	210E	4304734155	5265	Federal	GW	P	
WV 3W-19-8-22	19	080S	220E	4304734187	17123	Federal	GW	P	
WV 4W-23-8-21	23	080S	210E	4304734188	17123	Federal	GW	P	
WV 6W-23-8-21	23	080S	210E	4304734189	17123	Federal	GW	S	
WV 2W-15-8-21	15	080S	210E	4304734242	17123	Federal	GW	P	
WV 2W-22-8-21	22	080S	210E	4304734243	17123	Federal	GW	P	
WV 4W-14-8-21	14	080S	210E	4304734244	17123	Federal	GW	S	
WV 6W-12-8-21	12	080S	210E	4304734245	5265	Federal	GW	TA	
WV 7W-15-8-21	15	080S	210E	4304734246	17123	Federal	GW	P	
WV 8W-15-8-21	15	080S	210E	4304734247	17123	Federal	GW	P	
WV 12W-12-8-21	12	080S	210E	4304734248	17123	Federal	GW	TA	
WV 14W-15-8-21	15	080S	210E	4304734249	17123	Federal	GW	P	
WV 16W-10-8-21	10	080S	210E	4304734250	17123	Federal	GW	P	
WV 16W-15-8-21	15	080S	210E	4304734251	17123	Federal	GW	P	
WV 3W-12-8-21	12	080S	210E	4304734267	17123	Federal	GW	OPS	C
WV 4D-12-8-21	12	080S	210E	4304734268	17123	Federal	GW	OPS	C
WV 6W-14-8-21	14	080S	210E	4304734271	17123	Federal	GW	S	
WV 9W-11-8-21	11	080S	210E	4304734274	17123	Federal	GW	OPS	C
WV 10W-14-8-21	14	080S	210E	4304734275	17123	Federal	GW	P	
WV 11W-14-8-21	14	080S	210E	4304734277	17123	Federal	GW	P	

Bonds: BLM = ESB000024

BIA = 956010693

State = 965010695

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
WONSITS VALLEY  
effective June 14, 2010

well_name	sec	tpw	rng	api	entity	mineral lease	type	stat	C
WV 12W-14-8-21	14	080S	210E	4304734279	17123	Federal	GW	TA	
WV 14M-11-8-21	11	080S	210E	4304734280	17123	Federal	GW	P	
WV 14W-14-8-21	14	080S	210E	4304734281	17123	Federal	GW	S	
WV 16G-14-8-21	14	080S	210E	4304734283	5265	Federal	OW	P	
WV 3MU-15-8-21	15	080S	210E	4304734289	17123	Federal	GW	P	
WV 4MU-15-8-21	15	080S	210E	4304734291	17123	Federal	GW	P	
WV 5MU-15-8-21	15	080S	210E	4304734293	17123	Federal	GW	P	
WV 6W-15-8-21	15	080S	210E	4304734294	17123	Federal	GW	P	
WV 10W-15-8-21	15	080S	210E	4304734295	17123	Federal	GW	P	
WV 4W-24-8-21	24	080S	210E	4304734330	17123	Federal	GW	P	
WV 8M-23-8-21	23	080S	210E	4304734339	17123	Federal	GW	P	
WV 8W-24-8-21	24	080S	210E	4304734340	17123	Federal	GW	P	
WV 2W-8-8-22	08	080S	220E	4304734468	17123	Federal	GW	P	
WV 8W-7-8-22	07	080S	220E	4304734469	17123	Federal	GW	S	
WV 8W-22-8-21	22	080S	210E	4304734564	17123	Federal	GW	P	
WV 14MU-10-8-21	10	080S	210E	4304735879	17123	Federal	GW	P	
WV 13MU-10-8-21	10	080S	210E	4304736305	17123	Federal	GW	P	
WV 3D-13-8-21	13	080S	210E	4304737923	17123	Federal	GW	OPS	C
WV 14DML-12-8-21	12	080S	210E	4304737924	17123	Federal	GW	P	
WV 15AML-12-8-21	12	080S	210E	4304737925	17123	Federal	GW	OPS	C
WV 13DML-10-8-21	10	080S	210E	4304737926	17123	Federal	GW	P	
WV 4DML-15-8-21	15	080S	210E	4304737927	17123	Federal	GW	P	
WV 11AD-14-8-21	14	080S	210E	4304738049	17123	Federal	GW	P	
WV 6-24-8-21	24	080S	210E	4304738663	17123	Federal	GW	P	
WV 2ML-24-8-21	24	080S	210E	4304738664		Federal	GW	APD	C
WV 16C-14-8-21	14	080S	210E	4304738737	17123	Federal	GW	P	
WV 7BML-24-8-21	24	080S	210E	4304738970		Federal	GW	APD	C
WV 7AML-12-8-21	12	080S	210E	4304739035		Federal	GW	APD	C
WV 14BML-12-8-21	12	080S	210E	4304739036		Federal	GW	APD	C
WV 14B-13-8-21	13	080S	210E	4304739037		Federal	GW	APD	C
WV 4B-14-8-21	14	080S	210E	4304739038		Federal	GW	APD	C
WV 13A-15-8-21	15	080S	210E	4304739039	17123	Federal	GW	P	
WV 8D-15-8-21	15	080S	210E	4304739040	17123	Federal	GW	P	
WV 4BD-23-8-21	23	080S	210E	4304739041	17123	Federal	GW	P	
WV 7CML-11-8-21	11	080S	210E	4304739042		Federal	GW	APD	C
WV 7BD-23-8-21	23	080S	210E	4304739044	17123	Federal	GW	P	
WV 2CML-7-8-22	07	080S	220E	4304739155		Federal	GW	APD	C
WV 13AD-8-8-22R(RIGSKID)	08	080S	220E	4304739321	17123	Federal	GW	P	
WV 2B-22-8-21	22	080S	210E	4304740262		Federal	GW	APD	C
WV 8D-22-8-21	22	080S	210E	4304740263		Federal	GW	APD	C
WV 7A-24-8-21	24	080S	210E	4304740331		Federal	GW	APD	C



## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, UT 84145-0155

<http://www.blm.gov/ut/st/en.html>



IN REPLY REFER TO:  
3100  
(UT-922)

JUL 28 2010

#### Memorandum

To: Vernal Field Office, Price Field Office, Moab Field Office

From: Chief, Branch of Minerals

*Roya L. Bankert*

Subject: Name Change Recognized

Attached is a copy of the Certificate of Name Change issued by the Texas Secretary of State and a decision letter recognizing the name change from the ~~Eastern States~~ Office. We have updated our records to reflect the name change in the attached list of leases.

The name change from **Questar Exploration and Production Company** into **QEP Energy Company** is effective June 8, 2010.

cc: MMS  
UDOGM

RECEIVED

AUG 16 2010

DIV. OF OIL, GAS & MIN. (MMS)